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TRADITIONS OF MEDICINE IN RHODE ISLAND

President's Address at the Annual Meeting, Springfield, Mass., October 2, 1925

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THAT you have deemed me worthy to preside over the deliberations of the New England Surgical Society, whose membership today includes nearly all of the most eminent surgeons of New England, is beyond my deserts; and yet is my encouragement, to prove worthy of so signal an honor. May I express to you my gratitude for bestowing upon me the privilege of standing in this place, in succession to those who have left with us a tradition of noble leadership? That my words may not have fallen below the authority of this chair is my single hope. For my theme I have chosen:

TRADITIONS OF MEDICINE IN RHODE ISLAND

In order that we may evaluate the practice of medicine in the earlier periods in these colonies, it is essential that we have an acquaintance with localities and the approximate number and types of the inhabitants.

Roger Williams, a staunch defender of the right of the individual to serve God according to the dictates of his own conscience,—or, to use his own words, “No one should be bound to maintain a worship against his own consent”—was driven from the Massachusetts Bay colony, in mid-winter, and, after great privations, sought refuge among the Narragansett Indians, where in the year 1636 he founded a settlement at Providence.

Two years later, a settlement was made at Portsmouth, situated about five miles from Newport. On account of the safe harbor, the proximity of the ocean, the mildness of the climate, and the superior attractions of this beautiful island, a settlement was made at Newport in 1639; and, for many years, this was the most important town, as to wealth and population, in the Rhode Island and the Narragansett colonies.

Little attention was paid to an accurate enumeration of the inhabitants in the early days of the settlements; but we may form some idea of

their growth, by the apportionment of the taxes. At the first General Assembly held in 1647 under the earliest incorporation, which united the towns under one government, “a tax of one hundred pounds was levied as free gift to Mr. Roger Williams for his labor in obtaining the charter.” Newport was to pay fifty pounds, Portsmouth thirty pounds and Providence twenty pounds. At several subsequent levies, previous to King Philip's war, 1675-6, Newport was assessed two-fifths, while Providence was assessed for but one-fifth.

In the year 1690 the Council sent answers to certain inquiries of the Board of Trade, in which they state that “there may be of whites and blacks two hundred born in a year; for marriages we have about fifty in a year; for burials, this seven years past, according to computation, amounts to four hundred and fifty-five.” We may judge from many sources of information that there were about six thousand inhabitants (although the late Henry Bull estimated about seven thousand).

My early impressions were that the first settlers in New England were a God-fearing people and faithful in their attendance at church; so it was surprising to read in a report made in 1701, by the Rev. Dr. Humphreys, secretary of the society for the propagation of the gospel in foreign parts, where he gives an account of the religious state of the several colonies, that “In Rhode Island and Narragansett, which is one government, there are about ten thousand souls; of whom about one hundred and fifty frequent the church and there are thirty communicants.”

The first accurate census was taken in 1708. Total, seven thousand, one hundred and eighty-one; and of this number, four hundred and twenty-six were black servants, and of these, some were Indians. The census of 1730 was made by order of King George the Second and we find the population of Newport three thou-

sand, eight hundred and forty-three, and that of Providence three thousand, seven hundred and seven. The total population was seven-teen thousand, nine hundred and thirty-five, made up of: Whites, fifteen thousand, three hundred and two; blacks, sixteen hundred and forty-eight; Indians, nine hundred and fifty-five. Census in 1748: Total, thirty-four thousand, one hundred and twenty-eight, made up of: Whites, twenty-nine thousand, seven hundred and fifty-five; Negroes, and Indians, four thousand, three hundred and seventy-three.

Comparatively few physicians practiced in the colonies during the seventeenth century; yet we have evidence that they were heartily welcomed and some were offered special inducements to practice. The first General Assembly, held in 1664 at Newport, under the charter granted by Charles the Second in 1663, passed an act as follows: "Whereas, the court have taken notice of the great blessing of God on the good endeavors of Captayne John Cranston, of Newport, both in phissick and chirurgery, through the great comfort of such, as to have had occasion to improve his skill and practice, as might be expected in pioneer settlements. The court doe therefore unanimously enacte and declare that the said Captayne John Cranston is lycensed and commissioned to administer phissick and practice chirurgery throughout the whole colony, and is by this court styled and recorded, Doctor of phissick and chirurgery, by authority of this the General Assembly of the colony." A unique way of being introduced to the community as a practitioner of medicine.

Dr. Thomas Rodman, who was born in the Barbadoes, came to live at Newport in the year 1680, when thirty-three years of age. He was one of the leading men in the community for nearly fifty years, not only as a physician but also for his interest in the affairs of the colony. The town gave him a grant of land, to encourage him to settle there. He passed away when eighty years of age. I find some writings which state that the Rodmans were of social tastes and entered heartily into convivial life of the prosperous commercial town.

Many physicians not alone practiced medicine, but also took an active part in the religious, business and social life of the colonies. Dr. John Clarke arrived at Portsmouth, Rhode Island, in the year 1638, and moved to Newport the following year. He was a preacher, as well as a physician, and was the first pastor of the First Baptist Church at Newport. The colony appointed Mr. Roger Williams and Dr. John Clarke in 1651 to proceed to England to procure a repeal of Coddington's commission, constituting him Governor for life of the Islands in Narragansett Bay. This was accomplished the following year. Dr. Clarke remained twelve years in London as the agent of the colony and as a practicing physician. He,

with the aid of Roger Williams, procured the charter of Rhode Island granted by Charles the Second in 1663, which remained in force until superseded by the present constitution in 1842. This charter was remarkable, in that it granted freedom of religious worship and allowed the colonists to govern themselves as a democracy, where the majority rules. "No person within the said colony at any time hereafter, shall be any wise molested, punished, disquieted or called in question, for any difference in opinion in matters of religion, who do not actually disturb the peace of our said colony." Under the first charter the Assembly declared "that the form of government established is democratical, that is to say, a government held by the free and voluntary consent of all, or the greater part, of the free inhabitants."

Dr. Clarke afterwards returned to Newport, where he again officiated as pastor of the First Baptist Church and also practiced medicine until his death in 1676. He deserves to be honored, not alone for his skill and qualities as a physician, but also for ably upholding the hands of Roger Williams in navigating the ship of state.

We find a letter written in 1648 by Roger Williams to his friend Winthrop at New London, Connecticut, in which he thanks Winthrop for sending some advice and medicine, and he further states that in the sickness of himself and family he depended on his own skill and on some medical books in his possession. There were but few people in Providence at this time, only about one hundred capable of bearing arms.

In 1690 Dr. Norbert Felicien Vigneron, a well educated French physician, came to Newport and practiced until his death in 1764, at the age of ninety-five. He practiced medicine continuously for three-quarters of a century. His son succeeded him, and, following inoculation with smallpox, died as a result, at the age of fifty years.

In 1717 Dr. Sylvester Gardner, from South Kingston, studied in Boston, France and England, for a period of eight years. As a Loyalist, he fled to Nova Scotia and his lands were confiscated. At the close of the War of the Revolution he returned to Newport, where he continued to practice until his death in 1786.

Dr. Amos Throop of Woodstock, Connecticut, commenced to practice in Providence in 1738. He was the first president of the Rhode Island Medical Society, which was incorporated in 1812, and he was also the first male accoucheur in Providence. In accordance with the fashion of the day, he wore a powdered wig with several stiff tiers of curls, imported direct from London. He purchased a great quantity of drugs from London just before the War of the Revolution. He sent an order by one ship and a second order by another ship, fearing the first might fail to arrive; but he omitted

to state that one of the orders sent was a duplicate. He was quite disturbed upon finding that both orders had been filled and sent to him; but the medicines proved to be of great service to the inhabitants during the Revolutionary War.

Dr. William Hunter, an Edinburg graduate, a relative of John Hunter and a pupil of the elder Monro, arrived in Newport in 1750 after having served in the British army. He possessed greater operative skill than any of his confreres. He gave courses of lectures on anatomy in the court house in Newport during the winters of 1754-55-56. These were the first public lectures of the kind in the American colonies. He was a man of scholarly tastes and possessed the largest medical library in the province.

Dr. Jonathan Easton practised in Newport for fifty years, where he began practice in 1765. He was the first one to inoculate for smallpox, which he did in the year 1772. He was a Quaker, or member of the Society of Friends, a number of whom came to Rhode Island to escape the persecutions meted out to them in the other colonies.

Dr. Thomas Moffat came from Scotland to Newport about 1750. Although a highly educated physician he appears not to have had a large practice. He served as librarian of the Redwood Library from 1750 to 1752, and also taught several medical students, one of whom, Isaac Senter, became well known.

We are indebted to the instinct for business, possessed by Dr. Moffat, for the presence in Rhode Island of Gilbert Stuart, the most noted artist of Revolutionary days, who painted portraits of General Washington and Martha Washington as well as many other celebrities of the period. It seems that Dr. Moffat had noted the large amount of snuff annually imported from Glasgow, so he determined to raise tobacco and make snuff. Writing to Scotland, he secured the services of Gilbert Stuart, an experienced millwright, and a snuff mill was built on a stream in Narragansett. Gilbert Stuart married, built a house in South Kingston near the mill, and it was here his third child, the famous Gilbert, was born in 1756.

Dr. Moffat was a strict Loyalist and in 1765 was appointed by the Crown one of the three stamp masters of the colony. The indignation of the people against the stamp act was directed against the stamp masters, and his house was attacked, the doors and windows broken and the furniture destroyed. He continued practice until 1772, when his Tory principles drove him from Newport.

Dr. John Halliburton, the surgeon of a British frigate, arrived in Newport, about 1750. He resigned his position, married Miss Emma Benton and acquired a lucrative practice. Dr. Halliburton remained loyal to the King in the

midst of a rebellious community, and in the early days of the Revolution became unpopular on account of the suspicion that he secretly assisted the British. He followed the British army to New York after the evacuation of Newport and was appointed surgeon to a hospital in Halifax, where he died in 1807.

Dr. Isaac Senter, a native of New Hampshire, came to Newport in early life to study medicine under Dr. Moffat. He enlisted with the Revolutionists and was with General Arnold on the ill-fated expedition through Maine and the Canadian forests to Quebec, in November and December, 1775. He was taken prisoner, but was later released. He settled in Pawtucket in 1779 and later moved to Newport. He was one of the earliest writers among Rhode Island physicians and was an honorary member of medical societies in Edinburg and London.

These early settlers were very fortunate to have had the care and advice of so many well educated and cultivated physicians; in fact they were much better served than were the inhabitants during the nineteenth century.

Dr. Richard Bowen settled in the year 1780 at Seekonk, situated about two miles from Providence. He was thus enabled to attend the sick of both places.

Dr. Jabez Bowen, a grandson of Dr. Richard Bowen, settled in Providence and attained great professional eminence. He was the first physician who permanently resided in Providence.

Dr. Levi Wheaton was born in Providence in 1761. In 1774 he entered Rhode Island College, but on account of the war he did not receive his degree of A.B. until 1782. In 1778 he entered the military hospital in Providence as a volunteer, and completed his medical education under the tuition of Dr. William C. Bowen of Providence. In 1782, as a surgeon on a privateer, he was taken prisoner and carried to New York by the British frigate *Vestal*. While thus detained, he had charge of the prison hospital ship *Falmouth*. His practice was based upon the theory that diseases, in this climate at least, are generally inflammatory and that when inflammation is controlled the disease subsides as a necessary consequence; hence, venesection, tartaric acid, epsom salts and calomel were among the remedies upon which he placed the greatest reliance. It was a common remark with him "that we did not bleed enough; that there was no remedy of equal value in the treatment of our diseases." He said he had not had occasion to regret bleeding but in more than two or three instances in the whole course of his practice; but that he had frequently regretted the omission of it. Emetics, cathartics and opium were his favorite remedies. Dr. Wheaton lectured on the theory and practice of physic and obstetrics at the medical school at Brown University in

1822. It was not only as a thoroughly read and sound practical physician that Dr. Wheaton was entitled to preëminence, but still more so as a man of erudition and general scholarship. As a prose writer he had few superiors. He wrote articles upon yellow fever and Asiatic cholera; the latter was published in the city newspapers, while the former appeared in one of the Philadelphia journals. His anxious thought upon critical cases is well expressed where he says "I have at present two patients for whom I feel much anxiety. It is one of the miseries of the medical man to meet with patients he cannot cure and painfully to forebode the complicated sufferings of a bereaved family. How often, alas, has my heart been rung in this way for the last fifty years; and yet, I am still in the land of the living. It is indeed a painful responsibility to see ourselves looked up to as guardian angels and feel our insufficiency; our utter inability to save the victim of disease. Ah, what a life is that of a physician." He passed away from the busy scenes of life when ninety-one years of age.

Rev. James Manning was the head of Rhode Island College, founded in 1764, which was located at Warren, Rhode Island. The college in 1770 was moved to Providence. We must bear in mind that men of character, as well as scholarship, made the colleges; the number of buildings and the style of architecture counted for little. It was owing to the broad vision, culture and liberalism of James Manning that the college was a success.

The name of the college was changed to Brown University in 1804, during the presidency of Dr. Messer. The charter authorized the college "To admit to and confer any and all the learned degrees, which can or ought to be given and conferred, in any of the colleges or universities in America."

It may be of interest to know something about the medical school at Brown University. The medical department, which was one of the first in this country to be an integral part of a university, was instituted in the year 1811. Previous to this time the degree of Doctor of Medicine had been conferred by the university in a complimentary manner, on persons already eminent in the profession. The three medical professors who composed the first faculty were Dr. William Ingalls, Dr. Solomon Drowne and Dr. William C. Bowen. Dr. Usher Parsons was appointed adjunct professor of anatomy and surgery in September, 1822. He was with Commodore Perry at the battle of Lake Erie and was also professor of anatomy and surgery at Dartmouth. There were eighty-seven graduates who had the degree of Doctor of Medicine conferred upon them by Brown University. The medical school was closed in 1827. Rev. Francis Wayland, Jr., then being president. The corporation voted "that sal-

aries shall be paid only to such professors, tutors, or other officers as shall devote themselves during term time exclusively to the instruction and discipline of the institution, and shall occupy rooms in college during study hours, and attend in their several departments, such recitations as the President may direct, not exceeding three recitations of one hour each in every day."

Dr. Usher Parsons, the youngest of nine children, was born in Alfred, Maine, in 1778. His grandfather, Rev. Joseph Parsons, had six sons, three of whom graduated at Harvard and were respectively a clergyman, a lawyer and a physician. These died at an average of thirty-four years, while the three other brothers—a mechanic, a farmer and a trader—reached the average age of seventy-six. Fortunately for Dr. Parsons his father was a farmer, trader and lumberman. Usher Parsons attended the village school in winter and worked on the farm in summer; he spent but one year at an academy. He worked in retail stores until 1807, when he entered the office of Dr. Hall as a student of medicine. He taught school, studied Latin and resolved to obtain a degree of A.M. and M.D. and to become a teacher of anatomy. High resolves, you will say for a youth, but all of which were later realized. He studied in the office of the eminent surgeon, Dr. John Warren of Boston, son of General Warren, who was killed at the battle of Bunker Hill. He was examined by the censors of the Massachusetts Medical Society and approved and licensed as a practitioner of medicine in 1812. He received a commission as surgeon's mate in the United States navy, dated July sixth, 1812.

He was at Fort Erie, when Captain Oliver Hazard Perry arrived from Newport, Rhode Island, to superintend the outfitting of a fleet that was to contend successfully with a British squadron for the command of Lake Erie. We find him on September tenth, 1812, on board the *Lawrence*, the flagship of Commodore Perry. Many of the officers and men had been ill with bilious fever, so that out of a complement of a hundred and thirty-two men, only one hundred and one were, that day, reported fit for duty. Two other surgeons in the fleet were confined to their berths so that the burden of caring for the wounded fell upon Dr. Parsons. The enemy ships had a total of sixty-three guns while the American ships had only fifty-four guns. September tenth the enemy's six sails were sighted and signal was raised to the fleet: "Enemy in sight, get under way, all hands up anchor." The burgee or fighting flag with large white letters upon a blue ground, the last words of *Lawrence* as he expired, "Don't give up the ship," was raised on the *Lawrence*, the flagship. At 11.45 A. M. the first shot was fired from the British flagship *Detroit*, at one mile distant. Two hours afterwards Perry left the *Lawrence*, as all her

guns were disabled, and boarded the Niagara, and the Lawrence now hauled down her flag. Perry sent Captain Elliott, who commanded the Niagara, to the small vessels astern, to bring them up. Turning his ship's head at a right angle—to the course she had been sailing, he went within pistol shot of the Detroit's bow. The Detroit, in attempting to wear, to bring her broadside to bear, fell on board the Queen Charlotte, which gave Perry a chance to rake both ships, which he did so effectively that in five minutes they hauled down their colors. Perry then gave a broadside to the Lady Provoost which silenced her battery, and the Hunter next struck.

Dr. Parsons says, "The wounded were brought down faster than I could attend to them, further than to stay the bleeding and apply bandages and splints." During the engagement he amputated six legs. Midshipman Lamb had his arm badly fractured, and Dr. Parsons applied a splint; as Lamb was leaving the doctor a cannon ball struck him in the side and killed him. Charles Pohig, a Narragansett Indian, who was badly injured, suffered in like manner. The fighting terminated about three o'clock. British killed, forty-one; wounded, ninety-four. Americans killed, twenty-seven; wounded, ninety-six. There were eighty-three killed and wounded, out of one hundred and one who reported for duty on the Lawrence the morning of the battle. On board the Niagara, there were two killed and twenty-three wounded; of these twenty-five, twenty-two were killed or wounded after Perry took command of her. Those killed were committed to the deep at nightfall. Both British and American officers were buried on shore the next day and the funerals were attended by the officers of both fleets.

Perry's despatch reads: "We have met the enemy and they are ours." The wounded were placed on deck, over which an awning was hung, and they received andyones and stimulants during the night. The next day the wounded who had recovered from the immediate shock following their injuries, were attended by Dr. Parsons, who spent the entire day and evening of the eleventh of September, amputating limbs and dressing wounds. He had the wounded from the other vessels brought aboard the Lawrence. It is remarkable that of ninety-six wounded only three died. Parsons says that the knowledge of victory, the fresh provisions and a plentiful supply of fresh air assisted in their recovery. It is extraordinary that a youth of twenty-five carried on so successfully.

Dr. Solomon Drowne was born in Providence in 1753. From early youth he was inclined to a life of study. He graduated with the highest honors at Brown University in 1773. He then studied medicine for a year with Dr. William C. Bowen and later graduated in med-

icine at the University of Pennsylvania. He took an active part in the Revolutionary struggle; entered the service of the United States as surgeon's mate, in the General Hospital under Dr. John Morgan, director-general of hospitals, and was in New York at the time of the evacuation by the American troops. He was later surgeon to Colonel Cray's regiment and was in General Sullivan's expedition in Rhode Island. At the close of the War of the Revolution he commenced the practice of medicine in Providence, and in 1783 he was elected to the board of fellows of Brown University. In 1784 he visited Europe and some of his friends expressed surprise that he should leave home and expose himself to the inclemency of a long voyage, when he was sufficiently qualified for the practice of his profession. He says: "For my own part, I confess a strong persevering desire with bold adventurous hand, to-unfurl the veil that conceals from me the charms of nature and art; to visit different nations, and view the living manners as they arise, to penetrate as much as possible the source of useful knowledge, and especially to accomplish myself in the divine art of healing. Why did Grecian philosophers and physicians travel to Egypt? But why do I ask this question? Can anyone sit down at home and reach the sublimer heights of science? No! The sage Seneca knew better seventeen centuries ago."

After a stormy and tedious passage of sixty-one days, in the depth of winter, he reached London and spent several months attending lectures by Cline, Hunter and others at St. Bartholomew's, St. Thomas' and Guy's hospitals. In 1785 he crossed over to The Hague, travelled through Holland and Belgium and thence to Paris, where he attended the hospitals and lectures by Nelaton, Louis, Brissaud and others. He frequently was a guest of Dr. Benjamin Franklin at his house, at Passy, where he met many men of distinction. His journal during this period contains a minute and lively description of all prominent places and objects of interest, particularly botanical gardens, rare plants and works of art, for which he always cherished a partiality amounting to enthusiasm. On his return to Providence he resumed the practice of his profession for a short time and then removed to Marietta, Ohio. He returned to Providence, but on account of ill health went to Virginia and later to Pennsylvania, where he resided seven years. He returned to Rhode Island and settled in the town of Foster. He was exceedingly fond of country life and was a close student of nature. He built a spacious residence and adorned his grounds with a great variety of ornamental and fruit trees, obtained from different parts of the country, and he developed a botanical garden, which in a few years, from its size, rare and beautiful plants and careful cultivation, acquired a wide notoriety. He sent abroad for

plants and was the first to introduce many new species in our country. In 1811 Dr. Browne was appointed professor of materia medica and botany in Brown University. One of his conferees said that his attention to botany was directed not more to the philosophy of the science, than to its practical uses in agriculture and medicine. He was unequalled as a popular lecturer on botany. He gave an address to the Rhode Island Medical Society which furnishes an accurate index to his professional opinions and practice:

"In *Simplicitate Salus*—Restoration to health depends on simplicity in remedies, or, more literally, there is safety in simple things. On a review of my own practice, I have perceived greater advantages from the use of simple indigenous remedies, than of others commonly prescribed. It is to the simplicity and paucity of remedies used, to attention to the natural habit and regimen, that I can with least hesitancy ascribe my success in practice. By this I would not be understood to boast of cures performed, those were effected by the work of nature; the self-preserving energy, by exciting it when languid, restraining it when vehement, in changing morbid action, or in obviating pain or irritation, when they oppose its sanitary courses." He died at the advanced age of eighty-one.

Rhode Island had born within her borders, at Smithfield in 1804, a physician who was noted at home and abroad as a philosopher, teacher and author. The early life of Dr. Elisha Bartlett was spent on the farm and at the village schools in Smithfield and Uxbridge; later he attended a school in New York, conducted by the Society of Friends, which gave him a good foundation for his medical studies. He received instruction from several physicians, among them Dr. Levi Wheaton of Providence, and he attended medical lectures at Boston and Providence. He received his degree in medicine at Brown University in 1826. He then spent a year abroad continuing his studies at Paris, from June until December, and after visiting the principal cities of Italy returned to Paris early in March, 1827. After a month in London he returned to this country in June.

Some of his letters give us a glimpse of the medical teaching of the period. For instance: "One of the professors at the medical school looked more like a jolly stage driver, or good-natured blustering butcher, than anything else. He lectures sometimes standing, and sometimes leaning against a post, or straddling over a high stool, flourishing a lancet in one hand and a snuff box in the other; on the contents of which, he is continually laying the most inordinate contributions. He wears during the time an old rusty looking black cap. The familiarity of the distinguished surgeons and physicians with their students, struck me at first sight very forcibly; being in such perfect contrast to

the proud port and haughty carriage of some of our New England professors. I wish they might step into the Hotel Dieu and La Charité and take a lesson or two of Boyer and Dupuytren, Barons of the Empire, and two of the most distinguished surgeons in the world. Evidence of Bartlett's desire to improve his knowledge of medicine and his faculty of application is found where he says, in October, "The public lectures opened this week, and we are continually engaged from half past six in the morning until bed time. Visits are made, at all the hospitals by candle light and a lecture delivered at most of them immediately after the visit."

At this time he must have come in contact with the famous physician Louis, at La Charité, who then was collecting material, as a volunteer assistant to Chomel, for his important work on typhoid fever. Louis was a great inspiration to Bartlett and he became his model and his master; to him he dedicated his first edition of the "Fever," issued in 1842. Subsequent editions of this famous work were printed in 1847-1852 and 1857. It remains one of the most notable of contributions of American physicians to the subject, and places the name of Elisha Bartlett in the hall of fame of American physicians.

There developed in this country a group of peripatetic teachers, who divided their time between two or more medical schools; among them being Dunglison, Beck, Willard Parker, Alonzo Clark, Samuel Gross, Austin Flint, Frank Hamilton, Corydon L. Ford and others. These outstanding teachers of medicine were an inspiration to numerous young students, and this practice of the older generation might well be introduced today in our universities. Bartlett taught in no less than nine schools; his first teaching position was in the Berkshire Medical Institute at Pittsfield, Massachusetts, where he taught pathological anatomy and materia medica. He taught theory and practice of medicine at Transylvania University at Lexington, Kentucky, which was the strongest and best equipped medical school in the West.

It is of interest to note the following taken from a letter written to his friend Green, in March, 1843. His receipts for the session have been more than two thousand dollars. "There are a few good families who send for me and I get occasionally a consultation. We never make a charge of less than a dollar; and consultation visits, the first visit, are five dollars. These few enable me, situated as I am, to make even a small and easy business somewhat profitable. I have made one visit twenty-five miles distant, for which the fee was twenty-five dollars; and I saw a second patient, at the same time, incidentally for five dollars more. You see from all this that my place gives me rather more money than I could earn in Lowell, for a much smaller amount of responsibility and

labor. I have hardly, indeed, been called out of bed during the winter. In a business point of view, I feel quite content with my situation."

The College of Physicians and Surgeons in New York called Dr. Bartlett to join the faculty, in which were his friends, Alonzo Clark and Willard Parker; later he became one of the chief ornaments of the college. As early as 1831, we find Bartlett advocating the study of medical history, medical literature including sketches of the character, lives and writings of the chief masters of our art. He says: "The devotion of an occasional hour to such pursuits must have a tendency to enlarge and liberalize the mind. If our profession ever vindicates its legitimate claim to the appellation of liberal, it must be cultivated with some other than the single aim of obtaining patients, for the sole purpose of getting, for services rendered, an equivalent in fees." Doctor Bartlett practiced medicine in Lowell, Massachusetts, which was his home for twenty years. He was elected Mayor when he was thirty-two years of age, and he was reelected the following year; he also served two terms in the Legislature of the State of Massachusetts.

Dr. Oliver Wendell Holmes has left us this delightful picture of Bartlett: "It is easy to recall his ever welcome and gracious presence. On his expanded forehead no one could fail to trace the impress of a large and calm intelligence. In his most open and beaming smile, none could help feeling the warmth of a heart which was the seat of all generous and kindly affection. When he spoke, his tones were of sin-

gular softness, his thoughts came in chosen words, scholarlike, yet unpretending: often playful, always full of lively expressions, giving the idea of one that could be dangerously keen in judgments, had he not kept his fastidiousness to himself, and his charity, to sheathe the weakness of others. In familiar intercourse—and the writer of these paragraphs was once under the same roof with him for some months—no one could be more companionable and winning in all his ways. The little trials of life he took kindly and cheerily; turning into pleasantry the petty inconveniences which a less thoroughly good-natured man would have fretted over."

Bartlett was naturally studious, fond of history, biography and general literature, and as he was fettered by a general practice but for a short time, he had ample leisure to follow cultural lines. He died in July, 1855, and lies buried at Slatersville. The story of his life is inspiring and leads one to dwell in the higher planes of thought.

Thus gentlemen, I have sketched for you, all too briefly and inadequately, the story of the early pioneers of medicine in Rhode Island. They were inspired by the same motives, and actuated by the same high ideals of service, which are ours today. Lacking the stimulus of the association which comes of working with one's colleagues, in schools and hospitals; undergoing the hardships, and bearing the fatigues of life in primitive communities, they yet carried forward the noble traditions of medicine, and for this reason I have thought them worthy of your attention.

LESSONS FROM TWO OPERATIVE FATALITIES*

BY FARRAR COBB, A.M., M.D., F.A.C.S.

THE older I grow in operative surgery, the more alive I become to its dangers. I find it impossible to take responsibilities as lightly, or perhaps as thoughtlessly, as I did twenty years ago. My old revered Chief, Dr. Maurice Richardson, is said to have remarked in his later and riper years—"If I should live to be one hundred years old, I believe I would be afraid to operate." He realized, as all of us must, that there is no certain safety in any major operation. If those of us of late middle age and large experience reported more of our mistakes and had results, we might prevent some of the ill-advised operating by men rich in self-confidence but poor in surgical education and training and without experience as to what can happen, even in supposedly easy and simple cases. The calamities most keenly felt are those in which a post-operative retrospect proves to the surgeon that the fatal re-

sult might have been avoided had one recognized the significance of one or more symptoms or modified what at the time he thought perfect technique.

I must apologize to my learned brothers here assembled for presenting such an elementary paper.

The two cases which follow bring out certain points which you may care to discuss and possibly some may enjoy hearing of some one else's errors.

CASE I. Duodenal Ulcer.—Posterior Gastroenterostomy—Alarming post-operative hemorrhage from stomach—Second Operation—Transfusion—Incompatible Blood—Fatal Result.

On January 10th of this year, I operated on a man 27 years old. He had a large ulcer of the duodenum, which had caused typical symptoms for three years; and for two months, some pyloric obstruction with frequent vomiting. The diagnosis was confirmed by X-ray study.

*Read before the New England Surgical Society, Springfield, Mass., October 2, 1925.

He was a robust man weighing nearly two hundred pounds; red-faced and full-blooded, notwithstanding the vomiting. At no time had he vomited blood or had blood been found in the stools.

The operation was a posterior gastro-enterostomy by the accepted straight-loop method, as taught by the Mayos and as done by me in a long series of successful cases. I am sure there was no departure from the accepted technique, and also sure that the so-called hemostatic suture line was carefully and accurately inserted and tied. I expected an uneventful recovery.

The operation was done at eleven a. m. At six p. m., he began to spit up small amounts of dark blood, the quantity increasing rapidly and the color becoming brighter red. At ten p. m. gastric lavage with hot water (T. 120 F.) was tried, but the hemorrhages persisted in increasing amounts. At two a. m., his condition, from loss of blood, was alarming.

I then, under morphine-ether anaesthesia, re-opened the abdominal wound; opened the stomach by a longitudinal cut in the anterior wall and pulled up the gastro-enterostomy stoma into view. At one end of the posterior suture line, was a bleeding vessel. This was ligated and a whip stitch of chromic catgut run all around the edges of the stoma,—after which the abdominal wound was re-sutured.

The man's condition at this time was one of extreme collapse from hemorrhage.

Blood transfusion, using Kimpton tubes, was then done; the donor was one of a list of Type IV men—medical students, kept for emergency use. He had been typed two months previously by a man skilled in this technique.

The patient reacted promptly and well, to the transfusion, and remained in good condition for six hours. He then became delirious and cyanotic, his temperature rising rapidly reaching 106 when he died, twelve hours after the transfusion.

How often does alarming hemorrhage occur from a gastro-enterostomy opening? This is my first experience in a large number of cases.

What can be done to safeguard such a contingency?

If alarming hemorrhage does appear, how should it be checked? In no text books or articles on surgery have I been able to find any special statement in regard to this, other than the reference to a hemostatic line of sutures.

Wickham, in his new and very complete system of operative surgery, merely says, "Hemorrhage may be a post-operative complication." Balfour, in an article in the Mayo Clinics for 1923, entitled "Factors of Safety in Gastric Surgery," says, "Control of Hemorrhage is important and when oozing occurs, gastric lavage with hot water is an efficacious method of treatment."

I must believe that in the ordinary run of cases, a properly applied hemostatic stitch through all the coats of the viscera, will prevent hemorrhage and that hot water lavage will check moderate oozing, by emptying the stomach and giving it a chance to contract. But, in the light of this case, I believe that (rarely) alarming bleeding may occur, especially in vigorous, full-blooded individuals. To safeguard this, as much as possible, I suggest that after the completion of the posterior line of sutures, including the hemostatic stitch, the clamps be loosened and any visible bleeding points ligated;—this has been done in all my subsequent cases.

This man's death was due, obviously, in the main, to incompatible transfused blood, notwithstanding the fact that a universal type donor was used. There can be no absolute reliance on blood-typing. Whenever possible, and when time permits, fresh tests should be made on the spot—and even if this is done, there may be an unexplained incompatibility.

CASE II. Pyonephrosis—Nephrectomy—Complete Anuria.

In December last, I saw at her home in Maine, a woman 53 years old, who for three years, at intervals of from three to four months, had had attacks of acute pain and tenderness in the right side and back, accompanied by chills, high fever, frequency of micturition, with much pus and some blood in the urine. She was sick in bed from two to three weeks in each attack; when I saw her she had just recovered from such a period.

She was a small, thin, somewhat anemic woman, not robust, but seemingly in fairly good condition; the pulse was good and there was no fever. Pelvic examination was negative. A fluctuating tumor, as large as a child's head could be easily palpated in the right flank; it was not especially tender.

A probable diagnosis of pyonephrosis, with or without stones, was made.

Five weeks later she entered a Boston hospital, without having any more attacks; the tumor was in distinct evidence.

X-ray study showed no stones; a large shadow in region of right kidney and the normal outlines of a left kidney. Her blood pressure systolic, was 110; her heart sounds regular and moderately strong; her pulse rate 90.

Catheterization of the ureters was done: from left kidney, plentiful clear normal urine was obtained; from right kidney, cloudy fluid, chiefly pus and some microscopic blood. Color (pthalein test gave an appearance time of five minutes from left kidney and fourteen minutes from the right. Please note that the total one and two-hour pthalein percentage tests were not made, nor was the blood examined for nitrogen-urea and creatinin. I assumed from the free flow of normal urine and

a color appearance in five minutes that the left kidney was functionally good and had been the only active kidney in two or three years. With the large tumor and the evidence at hand, there seemed no need of pyelograms.

For a week following the ureteral catheter study, she was kept in bed, fluids forced and digitalis given; the average 24-hour amount of urine was 110 oz. with an average specific gravity of 114.

There was ample reason to believe that an operation could be done with safety.

Under gas-oxygen, given by Dr. F. L. Richardson, a large pus kidney was removed—the technique of the operation was satisfying—the time, 40 minutes—there was practically no hemorrhage. A sub-pectoral saline infusion was given after the return to bed. Her condition was good.

Complete anuria followed and death occurred in sixty hours, in spite of all treatment, including intra-venous saline and glucose, caffeine, etc.

Please note that when she was brought to the anaesthetizing room, her nurse said, "This patient vomited twice last night and is somewhat nauseated this morning." I believe I should have given heed to this statement; the nausea and vomiting may have been the early symptoms of a beginning renal insufficiency. In another case, I would postpone operation.

Was I justified in operating with the evidence I obtained? I thought so then. I doubt it now.

Blood examination might have shown a high percentage of urea nitrogen or creatinin.

I had clinical evidence enough, but not complete laboratory data. Still, the anuria might have occurred in the presence of entirely satisfactory tests;—we know such, fortunately rare, cases do happen.

Urological investigation should omit no worth-while accepted test. Yet, occasionally, any one of us may be so situated because of locality and lack of technical facilities, that he must go ahead on the clinical evidence alone.

I could have had the laboratory evidence but thought the clinical tests sufficient. I was in error possibly.

DISCUSSION

DR. LINCOLN DAVIS, Boston: The subject of hemorrhage from the stomach after gastro-enterostomy is a very interesting one. I have had one case where there was severe post-operative bleeding after a simple gastro-enterostomy. The wound was reopened that night and the bleeding point found in the line of sutures on the posterior wall. It was a case in which I had used the Connell suture, which I had always used previously. Since then I have given up that method of suture, using a lock-stitch suture with the loop on the gastric side which, I think, controls the bleeding on the stomach

side completely. One is much less likely to get bleeding from the jejunal side. I had a case last year of resection of the stomach for carcinoma in which a Billroth 2 operation was done, the patient vomited persistently for four or five days after operation but had practically no bleeding—a little dark blood the first time he vomited. After washing out the stomach along the fourth or fifth day a large old blood clot was evacuated, and from that time on the symptoms entirely stopped. I think in that case that there had been bleeding into the stomach and a clot had formed which overlaid the anastomosis and caused obstruction.

I think this is a point we have got to bear in mind, though it is fortunately seldom we get post-operative bleeding in these cases. We cannot be too careful in attending to hemostasis. I believe in the Amory Codman technique of allowing the mucous membrane to protrude on the first line of sutures on the anterior wall of the stomach; the clamps are then taken off and the protruding line of mucous membrane turned in with a Lembert suture—not a pretty technique but it is certainly effective in detecting any bleeding on the anterior wall, while the lock stitch controls it on the posterior wall.

DR. CHARLES L. SCUDDER, Boston: I would like to report a case; an operation for posterior gastro-enterostomy, in a man with a chronic duodenal ulcer, in whom was noted in the afternoon and evening of the day of the operation a slight rise in the pulse rate, that he wasn't comfortable and that he was pale. He had vomited three or four times small amounts of evidently fresh blood. The evening of the day of operation the same procedure was followed as in the cases of Drs. Cobb and Davis. The stomach was reopened, the bleeding point found at the stoma, ligated and the stomach closed. The man made a good recovery. There was no reason in this instance for seriously considering transfusion because the man had bled but little.

Two things impress me as important in this connection: First is the performance of every step in the operation of gastrojejunostomy so as to preclude the possibility of post-operative bleeding. The following seem to me important: The selection of a suitable site for the opening in the stomach and bowel; Separate linen suture ligation at once of large vessels in the stomach or bowel side which course towards or lie at the place of the incision in bowel and stomach; The adjustment of clamps (if used) equably and gently just so as to check bleeding without traumatization of the tissues; The taking of all sutures carefully so as to include vessels in their grasp; The suturing of the mucosa separated by interrupted lock or buttonhole suture, not abandoning the valuable Connell suture but employing it intelligently and carefully. It is too valuable to give up; the re-

lease of the clamps after the bowel and stomach are closed; a suture ligature wherever it then appears necessary; the three interrupted sutures on each side of the gastrojejunostomy, as stay sutures, to prevent undue traction on the stoma. If these steps are followed I think there will almost never be serious post-operative bleeding. In many years of active gastric surgery I recall but two instances of bleeding which occasioned concern.

The second important matter in this connection is that when bleeding occurs following gastrojejunostomy, immediate intelligent steps should be taken to check the bleeding before recourse to transfusion is needed.

DR. JOHN T. BOTTOMLEY: I have a feeling that there is no sure way of preventing hemorrhage after gastroenterostomy. No matter what suture you use, you may get post-operative hemorrhage. Fortunately thus far in my work I have escaped a serious one. Such cases of mild bleeding as I have had have been controlled by washing out the stomach. Dr. Munro used a teaspoonful of commercial adrenalin to a quart of hot water in his mild cases and I, too, have used that solution for post-operative lavage in such cases.

I am surprised to hear men talk of Connell suture for the posterior suture line. In all the years I have been operating I have used the lock-stitch on the posterior wall, but even that is not certain to prevent hemorrhage.

Dr. Dowd of New York has called attention to a method of doing gastro-enterostomy in those difficult cases where one can't get the stomach into the clamp. He uses the method of starting the posterior suture at the mid-point; take two needles and two threads and start from the mid-point posteriorly and finish at the mid-point anteriorly. Hemorrhages often come from at or near the corners. In cases difficult to suture one should not start from the corners because the difficulty is greatest there; start in the middle line and then your corners are as easily sutured as any place in the wound. Of late, I have been making a separate suture of the mucous membrane anteriorly.

I think Dr. Codman is right about letting the mucous membrane pout, because nature sometimes cures gun-shot wounds of the intestines by pouting the mucous membrane into them. The principle is a good one; for that reason, the muco-mucous stitch in the anterior line is, in my opinion, a correct procedure.

If you get signs of hemorrhage after a gastro-enterostomy, you ought to put your patient on an hourly or half-hourly pulse chart; and, if the pulse rises, you ought to go in within a reasonable time and see what the trouble is. Delay is the chief cause of our fatalities.

DR. FARRAR COBB, Boston (closing): I do not think I can add anything but I have profited by the discussion.

A CASE OF RETROPERITONEAL CYST*

BY J. DELLINGER BARNEY, M.D., F.A.C.S., BOSTON, MASS.

THE following case was admitted to the Urological Service of the Massachusetts General Hospital in November, 1924, with a diagnosis, made by her physician, of left hydronephrosis.

A married woman of 47 noticed about a year ago that there was a hard mass in the left side of the abdomen. The mass has gradually increased in size, but otherwise has produced no symptoms whatever and the patient has been in good health.

In October, 1924, the patient consulted a surgeon who told her she had an ovarian cyst. He advised and performed an operation without delay. At this time the surgeon found and removed an "ovarian cyst as large as two fists." He also found a large retroperitoneal cyst which he felt sure was a left hydronephrosis and being unwilling to undertake its treatment sent the patient to our clinic.

The patient's previous history was essentially negative except for two miscarriages.

Examination showed a healthy-looking, somewhat obese, rather nervous woman. Blood pres-

sure 110/80. Heart and lungs normal. Urine and blood chemistry normal. Abdominal examination showed a linear scar five inches long just to the left of median line. A large, smooth, freely movable, fairly resistant, slightly tender mass occupied most of the left side of the abdomen, extending somewhat to the right of the median line. Its upper limit was ill defined, but seemed to be one or two fingers' breadth above the umbilicus. Its lower limit could not be made out as it apparently extended deep into the pelvis. It was dull to flat on percussion, did not shift its position or its dullness when the patient lay on her right side and gave the impression of being semifluctuant. Pelvic examination showed a smooth, round, tense, non-tender, slightly movable mass, apparently identical with that felt above and not demonstrably connected with uterus or ovaries. Neither kidney could be felt. Roentgenograms showed nothing of diagnostic value.

Cystoscopy showed a normal bladder and ureters; catheters passed easily to either kidney and a left pyelogram showed no renal pathology or malposition.

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Operation was performed by the writer on November 19, 1924. The preoperative diagnosis was solitary cyst of the lower pole of the left kidney, although as a matter of fact, there was no definite evidence on which to base such a diagnosis. A left rectus incision was made and the peritoneum opened. The omentum was found strongly adherent in several places over a large, soft, elastic, fluctuant mass, lying behind the posterior parietal peritoneum. The mass extended across the median line and below the symphysis as well as occupying most of the left flank up to within two or three inches of the left kidney. The kidney was easily palpable, felt normal in size, shape and position and had no demonstrable connection with the mass. The uterus and both tubes and ovaries felt normal.

An incision through the posterior peritoneum exposed a thin-walled, bluish cyst. By blunt dissection this was easily shelled out from the retroperitoneal tissues, there being no pedicle or any point of definite connection with any organ or other structure. There was little or no bleeding. After removal the cyst was found to be the size of a child's head, translucent and filled with an apparently clear fluid.

The retroperitoneum was closed with catgut, as was the anterior peritoneum. The abdominal wound was closed in layers without drainage. Convalescence was normal and the patient left the hospital twenty days after operation.

The report of the Pathologist, Dr. H. F. Hartwell, showed a lobulated cyst about the size of a cantaloupe. On section it was composed of a single chamber, filled with clear straw-colored fluid and with paper-thin walls. Microscopic examination showed the tissue of the cyst to be composed of small cuboidal to flat cells with walls of connective tissue. The examination suggested a cyst of lymphatic origin.

An examination of the fluid showed the following chemical composition; non-proteid nitrogen 24 mgm, sugar 52 mgm, NaCl 687 mgm, total protein 190 mgm per 100 cc.

Being extremely interested by this case, the like of which I have never seen before, I have searched the records of the Massachusetts General Hospital, finding but five similar cases recorded, the first being in 1892 in the service of the late Dr. Maurice H. Richardson. Four of these were in females, one but 4 weeks old, two 25 years old and one 40 years old. The fifth occurred in a male infant of 13 months. In the two infants the statement was made that the abdomen was noticeably prominent from birth, but otherwise there were no objective or subjective symptoms and both babies were in apparently good health. In the case of the female baby the cyst seemed to originate either in the broad ligament or in the hollow of the sacrum, necessitating leaving a small portion of the sac behind. Convalescence was interrupted by

more or less infection of and pocketing in the wound but recovery was eventually complete. The pathologist reported a smooth, thin-walled cyst the size of a child's head. Microscopic examination showed a growth of fibrous tissue with large spaces filled with serous fluid in some of which were concretions staining deep blue, probably lime salts. A diagnosis of cystic lymphangioma was made.

In the male baby a thin-walled bluish cyst was exposed under the omentum and behind the posterior peritoneum. After the evacuation of 100 ounces of clear fluid the cyst was easily shelled out, there being no pedicle. During the operation the pancreas was freely exposed. No pathological or chemical examination is recorded. Recovery was complete.

Of the three adult females one had noticed only a swollen abdomen of a month's duration, one had noticed an abdominal tumor 2 years previously and had had an acute gastro intestinal infection 2 weeks previous to coming to the Hospital and one had had vague but rather severe abdominal symptoms for 6 or 7 years. No tumor had been noticed. In one case the surgeon described the tumor as like "a ball of fluid which had been placed in the pelvis." It was of bluish color, thin-walled and had no demonstrable pedicle. It was, however, adherent to the external iliac artery but had no connection with the kidney. Before removal 10 ounces of yellow-brown serous fluid was withdrawn. The pathologist reported that the specimen consisted merely of dense fibrous tissue with many blood vessels and infiltrated in parts with groups of round cells and on one surface the remains of an endothelial lining. In the second adult the mass, about the size of an orange, could be felt only on pelvic examination in the left cul de sac. At operation the sigmoid and rectum were found pushed well forward by the tumor which lay behind the peritoneum. The third adult, a woman of 40, was found to have a large elastic tumor filling almost the entire abdomen, especially the right side. At operation a "pailful" of brownish fluid without urinous odor, at first fairly clear, later containing cholesterol and sediment of a yellow brown color was removed from the cyst. The latter was adherent to coils of intestine, to the right ureter and to the vertebral column or its vicinity. The right kidney was removed together with the cyst, there being many adhesions and much bleeding. The patient died of shock 3 hours after operation. The pathologist reported a suppurating retroperitoneal cyst of uncertain origin but having no connection with the kidney. A chemical examination of the cyst contents showed a specific gravity of 1021, faintly acid, albumen 4.91%, total solids 6.70%, fixed solids 0.625%, chlorine 0.370%, urea 0.16%, P205 0.27%, NaCl 0.609%.

A sixth case catalogued as "retroperitoneal cyst" was found but the exact nature of the abdominal tumor could not be determined. Its description sounded much like that of an echinococcus cyst. The patient was a Swede, a man of 46, who had noticed a right-sided abdominal tumor for a year previous to coming to the Hospital. The most prominent symptoms, aside from tumor, were dyspnoea, edema of the feet and loss of weight. At operation an enormous cystic tumor was found lying behind the peritoneum. Its walls were very vascular. There was no demonstrable connection of this cyst with the kidneys, liver, spleen or adrenals. The pancreas could not be felt or seen but "it seemed not unlikely that the tumor arose from it or had obliterated it." After the removal of several pints of clear yellow fluid which coagulated rapidly, it was noted that the inner wall of the cyst "felt like moss." Removal being impossible, the sac was marsupialized.

Another case will be mentioned in brief as it also is among those having a diagnosis of "retroperitoneal cyst." It is, however, of a very different character from the others. It occurred in a woman of 24. There was a history of severe recurrent attacks of abdominal pain of 14 years duration. These suggested appendicitis. Examination revealed tenderness in the right iliac fossa with a hard, sausage-like mass along the course of the ascending colon. On opening the peritoneum there was seen a mass of grape-like, gelatinous cysts lying behind the posterior peritoneum, filling the iliac fossa and extending into the right lumbar fossa. These were not connected with any abdominal organ and were easily dissected out. The pathologist reported a mass of cysts varying from 3 to 15 mm. in diameter, bound together by connective tissue. Microscopic examination showed the cysts to be separated by and composed of fibrous walls and lined with a very low epithelium.

In view of the rarity of the cases just recorded and because of their interest both to the general surgeon and to the urologist, it has seemed worth while to touch upon the salient features of each one. In looking over the records of these cases and in reading the literature one cannot escape the fact that diagnosis may be and generally is a matter of considerable difficulty. Ovarian cysts, hydronephrosis, solitary cyst of the kidney, echinococcus and neoplasm of liver or kidney have all been considered in an effort to make a diagnosis. In not a few cases the cyst has been so tense that it was mistaken for a solid tumor. It is interesting, if not important, that in but few has there been any symptom beyond the presence of a tumor, this having been noticed by the patient himself. It is therefore impossible in most instances to make any statement as to the duration of the condition. On the other hand, the presence of

a tumor, together with the absence of symptoms typical of other conditions such as hydronephrosis, is of considerable diagnostic value. It is also of interest and probably of importance from the standpoint of etiology that these cysts are found far more frequently in women than in men. No adequate explanation for this seems to be offered.

Some of the difficulties to be met with at operation have appeared in the cases cited. Adhesions to surrounding or adjacent structures such as blood vessels, omentum, intestine and vertebral column may make the dissection of a retroperitoneal cyst a matter of the utmost difficulty; under favorable conditions the cyst can be enucleated with ease. The operative mortality of this series of 7 cases was 14.2%.

It may be well now to make clear just what is meant by the term "retroperitoneal cyst." I know of no better definition than that given by Handfield-Jones of London, who says, "The need exists for an accurate definition of the term 'retroperitoneal cyst,' for so many cases are so named which are cysts of organs such as the kidney, pancreas and so on. They are naturally situated behind the peritoneum, but I submit that the term should be reserved for those cysts lying in the retroperitoneal fatty tissues which have no apparent connections with any adult anatomical structure save by areolar tissue."

For a very full and illuminating discussion of the embryologic origin of such cysts the reader is referred to the recent article by Handfield-Jones (*British Journal of Surgery* XII, 45, July, 1924). It makes clear, what other articles do less convincingly and less in detail, that there are many embryologic sources of retroperitoneal cysts, these being (1) the remains of the pronephros, relatively unimportant, (2) the remains of two different portions of the mesonephros, each having its own special time for degeneration and disappearance, and (3) the remains of the metanephros, which according to a new conception of its life history, recently set forth by Kampmeier (*Surg., Gyn., & Obstet.*, 1923, XXXVI, 208) offers even more possibilities for subsequent cyst formation than was previously thought possible. While it is impossible and for the purpose of this paper unnecessary to go into the details of these embryologic rests, it is important to emphasize the fact that they are, in the opinion of all students of the problem, the antecedents of cysts such as have been described. On the other hand the field of embryology has been ploughed only to the extent of finding evidence rather than actual proof of the steps leading to the end result.

Handfield-Jones claims originality for the theory that certain retroperitoneal cysts have their anlage in the arrangement, seen in the adult, of the ascending and descending colon.

During the arrangement of these portions of the intestine two layers of peritoneum must disappear; in the event of this degenerative process being incomplete small islands of peritoneum will remain behind the peritoneum, these islands acting as nuclei for subsequent cysts. It is generally acknowledged that even though the formation of these cysts can be explained in whole or in part on embryologic grounds, it is practically impossible to identify a given cyst as of pronephric, mesonephric, metanephric or mesocolic origin. There is apparently nothing absolutely conclusive as to their histology nor does the chemistry of their contents lead to definite differentiation. Roughly speaking, cysts lying above the plane of the foramen of Winslow are either pronephric or mesonephric in origin, while those occurring at a lower level may be regarded as mesonephric or metanephric. Cysts associated with the kidney can be assumed to have arisen from the metanephros; those of the female pelvis, involving the broad ligaments, are more than likely to be of a mesonephric or Wolffian body source.

The rarity of these retroperitoneal cysts, the

speculation as to their exact origin and the uncertainty of diagnosis, all contribute, in the writer's opinion, to the view that they are among the most interesting abdominal tumors which are to be found. It is to be hoped that a more careful study of the details of each case from the standpoints of chemistry, histology and anatomy will accumulate a mass of evidence which will eventually unfold the life history of the retroperitoneal cyst.

DISCUSSION

DR. JAMES S. STONE, Boston: It is interesting that two out of six cases Dr. Barney mentioned were in children. We see a number of these in the Children's Hospital, apparently originating from embryonic structures. I think I have operated on three or four myself and must have seen six or eight in all in infants and children.

DR. J. D. BARNEY, Boston (closing): I have nothing to add except that we do not see them because Doctor Stone gets them out before they come to us.

THE FRACTURE COMMITTEE OF THE AMERICAN COLLEGE OF SURGEONS*

BY CHARLES L. SCUDDER, M.D., F. A. C. S.

It is, of course, unnecessary but not inappropriate to remind you that the most neglected subject in surgery today as for generations past is that of fractures. Even the non-recognition of such injuries is all too common. The absence of rational treatment is very general. Treatment is often inadequate.

Consequently, the results of fracture treatment are poor,—in fact, at times, a disgrace to surgery. The ignorance of the medical profession on the subject of fractures is surprisingly shocking.

Suits for malpractice in fracture cases form over sixty per cent of all malpractice suits in various states.

In a certain insurance clinic (with which I am not connected but with which I am familiar), in an unselected series of over one hundred fractures of the shaft of the femur not a single individual is back on his former job and restored to his wage-earning capacity previous to the accident, because of actual disability dependent on the injury due to inadequate, inefficient treatment.

Contrast this picture with that from a certain clinic where, of several hundred unselected cases of femoral shaft fracture in adult men, all individuals are back on the job as before the

accident, receiving the same wages. Moreover, these men were at hard work on an average of five months after the accident. Here are presented two extremes: Inadequate treatment vs. appropriate treatment; Bad results vs. ideally satisfactory results.

The Fracture Committee of the American College of Surgeons is attempting to improve the treatment which fractures receive throughout the country, and thus to carry on the excellent work of the original Fracture Committee of the American Surgical Association.

It is likewise unnecessary but not inappropriate to this subject to suggest to you that this is a most important, fascinating and productive field of surgery. A fracture, involving as it may, abdominal viscera, thoracic viscera, cranial contents and spinal cord, the skeleton of locomotion and the skeleton of upper extremity motility, affects the material well-being not only of an individual but perchance of an entire family, touching possibly the art of a violinist, painter or sculptor, and often involving the very life of the individual. A so-called "simple fracture" always demands in its treatment the exercise of the highest possible surgical judgment and skill. The judgment used in the initial and final selection of treatment in a given case of fracture, the precision and care exercised in carrying out this treatment, the delicacy of

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handling the soft tissues and bone in operative and non-operative work, these qualities required of the surgeon, if the maximum restoration to normal function is to be attained, are as great if not greater than those required and exercised in the finesse of goiter operations, abdominal work, cerebral surgery and in any of the better established and more generally appreciated fields of surgery.

The Fracture Committee appreciates and fully recognizes these considerations in its activity. The Committee realizes the magnitude of its task measured by the highest ideal.

The surgical profession is aware of the deplorable situation in fracture treatment throughout the country. It is, of course, far better that the demand for improvement come from within the profession rather than from outside interests. The demand for betterment has come from the profession in the establishment of the Fracture Committee of the American College of Surgeons.

What has the Fracture Committee accomplished and what is it now doing?

(1) The American College has succeeded in standardizing about seventy percent. of the general hospitals of this country and Canada. This is a splendid and far reaching achievement. You are familiar with the original five minimum requirements for hospitals.

At the suggestion of the Fracture Committee, essentially a sixth requirement has been added to this minimum standard, namely: *A minimum equipment in all general hospitals to care for the emergency treatment of fractures.* The materials needed have been accurately specified. This minimum equipment is being installed in all general hospitals approved by the College.

(2) In the College's minimum standard, records of cases are required. The Fracture Committee has prepared, and the College is advising the use of a special sheet for fracture records. This sheet is based on the sheet of the Committee on Fractures of the American Surgical Association. It is essentially the same sheet more conveniently arranged.

(3) Further, the Committee is getting into touch with a surgeon in every one of the fifteen hundred approved hospitals of the country. The Committee through the good offices of the College is not only getting into touch with such surgeons, but intends holding these surgeons personally responsible to this Committee for (a) carrying out certain general details, essential to the adequate treatment of fractures, (b) the recording of such treatment and (c) the securing of end-results of treatment. In addition, therefore, to the annual survey of the College, the Committee hopes, through the machinery of the College's office, to be in direct touch at all times with every standard hospital in the United

States and Canada so far as fracture problems are concerned. Thus a personal interest and pride of accomplishment will be stimulated in every general hospital in the country. It is the personal equation which counts.

(4) The Committee has undertaken two educational moves,—one in connection with the better instruction in undergraduate medical schools throughout the country in order to reach the younger medical students, and the other in providing in certain centers opportunities for the discussion of fracture treatment and observation of such treatment through clinical demonstrations. These opportunities are now successfully established and functioning under the auspices of committee members in Philadelphia, New York, Boston, Pittsburgh and Chicago. These are proving helpful to the general surgeon and the general medical man and are stimulating interest in fractures.

(5) The Committee is undertaking the collaboration of a series of short, concise papers on subjects of practical value in fracture treatment. These papers, edited carefully by the whole Committee, the College expects to be able to print and distribute to the standard hospitals of the country and to those individuals especially concerned with fracture treatment.

These are at present the five forms of activity of the Fracture Committee.

The Surgical profession of the country cares a great deal about improving the treatment of fractures. We are all disturbed by present conditions; they are deplorably bad. As a profession we have high ideals of progress.

Why is it that such conditions have arisen and continue to exist? The answer is because the desire for improvement has been without adequate means of expression. Progress comes through enlightened public surgical opinion. Surgical opinion cannot make itself effective except by the creation of an institution adapted to give it effect. To get things done some agency must be designated to give effect to the general desire that they be done. We now have in the American College of Surgeons an institution, widespread, touching every community, every hospital, everyone of upward of seven thousand surgeons in the United States and Canada, touching indirectly every medical school and hence every medical student. This nation-wide need for improvement in fracture treatment calls for an understanding of the infinite varieties of local conditions, traditions, prejudices, beliefs, inherited ideas of practice, all of which make the simplification of the problem very difficult. The institution essential to progress in this direction exists in the American College of Surgeons. This institution commands respect. Its machinery is at the disposal of the Fracture Committee. The executive committee and the board of regents of the College recognize the

widespread need of the undertaking and the importance of the problems involved.

The Fracture Committee feels adequately supported and encouraged in every move.

There is one unflinching characteristic of human nature which comes into play in connection with the functioning of an institution. This characteristic is the basis for real hope and faith in the future. It is that after an institution is established and is conspicuous and universally known, that it then enters into the basis of thought of those who have to do with the subjects to which it relates and for which it stands. People begin to think differently about such subjects. They begin to think that way, and if the institution is so conducted as to command confidence within its original scope it grows naturally and inevitably. Enlargements and improvements of the ideas for which the institution is sponsor are readily accepted. The Fracture Committee feels that thus far constructive work has been accomplished. A sure foundation is being laid for future achievement. The really important thing after all is to get the tendency and the drift right. Improvement of the sort that we seek surgically does not admit of sudden and spectacular accomplishment. General progress in this direction cannot be made much faster than the improvement of the more poorly equipped physician and hospital. We do need on this fracture subject an aroused and interested local community medical conscience. The Fracture Committee of the American College of Surgeons is striving to blaze the way in awakening this medical conscience.

The Committee looks eagerly to all of us, as members of the New England Surgical Society, and as members of the American College of Surgeons, to cooperate with it in our respective communities and hospitals in furthering better fracture treatment. The Committee believes that members of this Association can assist:

- (1) By arranging that some one or more surgeons, preferably young men on the hospital staff, are made responsible for fractures.
- (2) By the keeping of adequate records according to the approved sheet.
- (3) By encouraging younger surgeons to devote themselves exclusively to traumatic surgery,—which assumes such great importance in connection with industry and undoubtedly provides a livelihood as a special branch of surgery.
- (4) By supporting the Fracture Committee in its every attempt to improve fracture treatment.

Finally the Fracture Committee reflects that it will eventually be able to assemble thousands of records of cases of fracture through its personal-contact plan and through the requirement by the College of adequate record keeping. A study of such assembled fracture records will mean the possibility of arriving at the disability associated with fracture injury in terms of days away from work and money loss. Such information is highly desirable from many points of view.

ORIGINAL ARTICLES

THE MORBIDITY AND MORTALITY OF DIPHTHERIA*

BY DWIGHT M. LEWIS, M.D.

It is current opinion and accepted fact that the morbidity and mortality of the disease diphtheria revolves around the undiagnosed, late or untreated cases in the main, with greater or less consideration for the virulent carrier. In other words the factors of morbidity and mortality are solely concerned in the specific disease, diphtheria. With the discovery of its etiology by the laboratory, methods for its control have ever, and even today are being advanced from the viewpoint of the laboratory. Effective administrative action based on the definite factors of morbidity and mortality of a disease should lead to the control of both morbidity and mortality. We are all agreed that while mortality has been tremendously reduced,

morbidity in diphtheria has been but little if at all influenced. Acceptable evidence of control of typhoid fever, for example, is evidenced by a morbidity of say 50, and a mortality of 5 or less per 100,000 of population. With a prevailing morbidity from diphtheria of 200 or greater and a mortality of upwards of 15 or greater, duplication of the figures for typhoid fever in diphtheria, where years of previous history are of uncontrolled diphtheria, should be a demonstration of the possible factors in both morbidity and mortality. Sound epidemiological observations with bacteriological and biological support should complete the demonstration.

Ten years of field investigation of the disease, two-thirds of which period has been spent in the same municipality, has yielded me facts and figures demonstrating that a dominant fac-

*Read before a joint session of the Public Health Administration Section with the Vital Statistics Section of the American Public Health Association at the 53rd annual meeting at Detroit, October 23, 1924.

tor in the morbidity of the disease diphtheria lies, in the main, in the cyclic epidemicity of the disease measles. The main facts are as follows: First, return cases of diphtheria showed the frequency of visible nasal involvement in the convalescent case. Secondly, secondary cases in the family were the rule where a nasal carrier with characteristic nasal discharge was found in the family, and the history was not always forthcoming or the evidence sufficient, that such a carrier had been previously a case.

ondary to faucial diphtheria in the near-moribund and anterior excreting discharges containing the diphtheria bacillus in the so-called healthy, is not appreciated. Ninth, applied physiology explains why an immunity may be gained by a nasal carrier who has never had the disease. Tenth, and finally, pure streptococcal infections simulate as well as complicate diphtheria, and carriers presenting an excreting nasal discharge indistinguishable from the diphtheria nasal carrier are to be

| DIPHTHERIA | | CASES AND DEATHS FOR TOTAL CITY | | | | | | MEASLES |
|------------|--------|---------------------------------|----------|----------------|-------------|------------|---------|---------|
| | | AND BY WARDS: 33 TOTAL | | | | | | |
| 1911 | 248-24 | | | | | | | — 2 |
| 1912 | 239-15 | | | | | | | — 20 |
| 1913 | 383-22 | 567-8-8 | 10-11-12 | 16-17-18-19-20 | 25-26-27-28 | ALL OTHERS | | — 3 |
| 1914 | 450-21 | 143-7 | 88-4 | 23-2 | 111-6 | 79-2 | | — 27 |
| 1915 | 272-27 | 91-8 | 49-8 | 29-3 | 46-2 | 57-6 | | — 12 |
| 1916 | 135-19 | 62-8 | 21-7 | 12-1 | 18-2 | 22-1 | 235-6 | |
| 1917 | 175-21 | 57-6 | 35-5 | 21-2 | 35-2 | 27-6 | 1981-26 | |
| 1918 | 62-6 | 10-1 | 14-1 | 9-0 | 13-1 | 16-3 | 251-3 | |
| 1919 | 118-12 | 39-2 | 16-1 | 18-1 | 14-1 | 31-7 | 114-6 | |
| 1920 | 412-16 | 155-7 | 74-7 | 11-0 | 43-1 | 129-1 | 855-8 | |
| 1921 | 466-17 | 198-6 | 79-3 | 17-0 | 50-2 | 122-6 | 936-26 | |
| 1922 | 468-22 | 194-4 | 80-4 | 34-2 | 56-5 | 118-7 | 72-1 | |
| 1923 | 184-9 | 73-5 | 37-3 | 19-1 | 16-0 | 39-0 | 1869-33 | |
| 1924 | 60-1 | 11-0 | 16-1 | 10-0 | 4-0 | 18-0 | 921-5 | |
| 1925 | 50-7 | 13-1 | 14-3 | 2-0 | 2-1 | 19-2 | 36-0 | |
| 1926 | 39-1 | 10-0 | 9-1 | 1-0 | 10-0 | 6-0 | 137-0 | |

ILLUSTRATION 1.

Third, such nasal carriers were frequently found during the course of an attack of measles and cases of diphtheria followed among the contacts of such a convalescent measles case. Fourth, isolation of such nasal carriers led to lessened frequency of cases of diphtheria. Fifth, virulence in the nasal carrier not previously a case of, nor a contact of a case of diphtheria, was positive when that carrier was a convalescent from some other specific disease, measles for example, while the diphtheria bacillus from some other members of the isolated family, the evident origin of the carrier first mentioned, gave a negative virulence. Sixth, nine-tenths of the carriers epidemiologically infective, were nasal, and during a measles year three-fourths of such nasal carriers were under age 10. Seventh, successive development of nasal carriers among a family of children even to the babe in arms was not uncommon. Eighth, the distinction between nasal diphtheria sec-

found when streptococcal infections are more or less wide-spread.

Our premise then is that measles frequencies are followed by increase of diphtheria cases. An increased morbidity from diphtheria occurs through the production of a tide of nasal carriers and the isolation of these as well as of the avirulent nasal carriers during measles prevalence produce decreased morbidity of diphtheria. Illustration number 1 shows the total number of cases and deaths yearly or bi-yearly for diphtheria and measles for New Haven, with the distribution of cases and deaths from diphtheria by groups of wards. For convenience reference will be made in terms of the letter carried over each such group. It will be noted that until 1916, a record of cases of measles is not available. Certain facts are to be read into the illustration as well. Beginning the work in 1914 with but one assistant, a sanitary inspector, the routine of attempted con-

trol of all communicable reportable diseases together with the routine of all laboratory examinations left but little time for other than any usual observations that were commonly repeats. Beginning the work during a measles epidemic, the dominant repeats were sore noses, visibly sore and bacteriologically positive, and the epidemiological rainbow of history that diphtheria followed measles. Less than two months' work showed the possibilities and the main part of a morning's work of the inspector was rid-

of school children. You recall that other surveys record the usual two per cent carriership of both nose and throat and that but one in ten of such carriers are virulent when tested. I severed my connection with the local health department after the mid-year, 1918, again taking up the work at the close of 1921. Since 1919 there had been two full time nurses on communicable diseases and from July 1, 1920, District B had been taken over as a health center. During the period 1919 through 1921 for the

NEW HAVEN WEEKLY MORBIDITY RATE PER 100,000 POP'N. DIPHTHERIA — and MEASLES —
5 cases Measles = 1 case Diphtheria. Pop'n. July 1, 1924 = 175947. U.S. Census. Yearly increase = 2980.

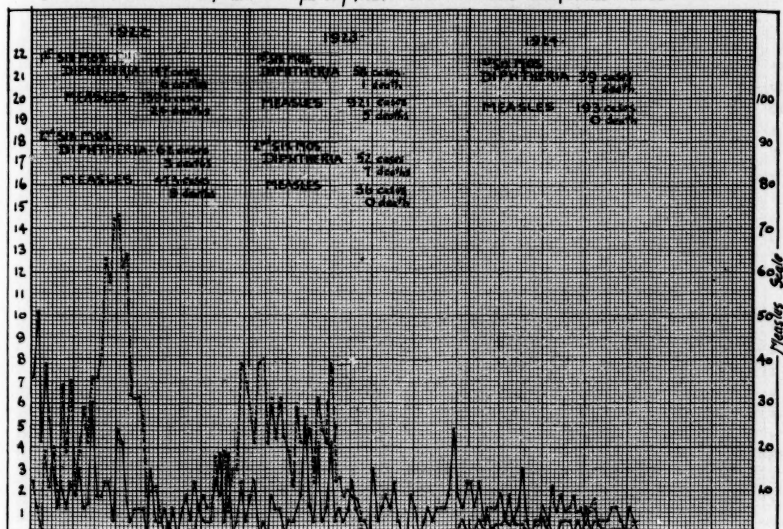


ILLUSTRATION 2.

ing or walking the streets of District D where measles had been prevalent and where parental responsibility was most evident, seeking sore noses among children. In late 1917 following increased diphtheria after epidemic measles of the spring, I obtained the temporary services of two graduate nurses. Showing these nurses three children, one a typical nasal diphtheria carrier, one with an ordinary head cold and one with normal mucous membranes, I taught them how to take a nose culture. They were then sent through the schools on week days and through a limited pre-school population during week ends, through department stores as well during holidays, looking for more or less typical sore noses, disregarding ordinary head colds. In two months a survey of approximately 35,000 school children had been made with less than 700 cultures. Of importance for contrast with later such surveys elsewhere, we had a two-tenths per cent carrier population

city, and until July 1, 1923, in District B, diphtheria carriership as related to other respiratory disease and the dominant infectiveness of the nasal carrier had no status. With such a background much may be learned from the illustration. With evidence of increased measles during 1914 we have increased diphtheria in the total city and possible increase in each of the several districts when the figures of the two following years are considered. Mindful that we began our carrier work in District D, the reduction in total and for each of the two following years in that district, as compared to the figures for the other districts, may well be referred to. Again in 1917, with epidemic measles there is evidence of a slight increase in cases for the total city and for all but one of the districts. Attention is drawn to the difference in cases for each district as compared to the figures for 1914 and those of 1920. Again in 1922 measles was epidemic and the measures taken

in 1917, in abeyance in 1920, were again in effect save in District B. Total cases for the half year following epidemic measles, 1917, and the similar period following epidemic measles, 1922, are not notable in differences. Figures for the second halves of the years mentioned are notable in total city and for all districts other than B. In sum, a morbidity for diphtheria of 300 or over holding during the measles epidemics of 1914 and 1920 was cut to approximately 110 for 1917, to 80 for the annual based on the

definite figures for the other two cities other than these of the last Census. Further, having a population of approximately 100,000 morbidity rates are easily recorded. With the background of history of this city the same as New Haven previous to 1914, I present these contrasting weekly morbidities from diphtheria as a rather definite resultant evidence of the soundness of our argument. It will be the more appreciated from the accompanying illustration showing that the weekly morbidity

WATERBURY WEEKLY MORBIDITY RATE PER 100,000 POP.—DIPHTHERIA — and MEASLES
5 cases Measles. 1 case Diphtheria. Pop. July 1, 1924 = 99,547 U.S. Census. Yearly increase = 1935.

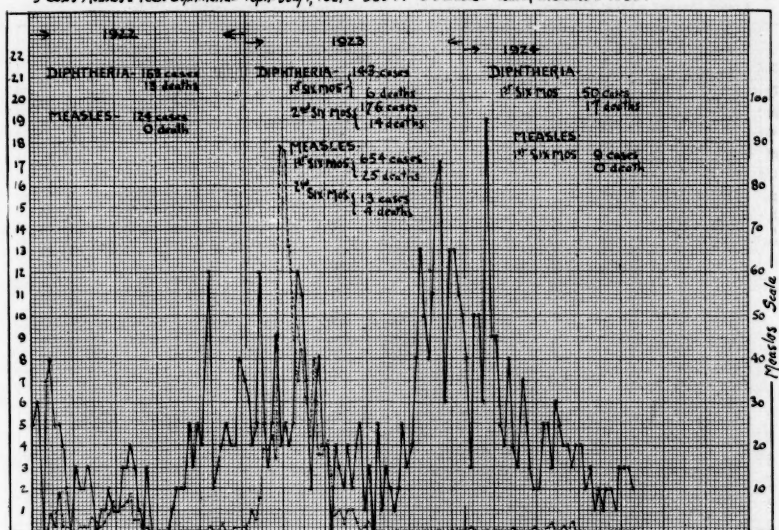


ILLUSTRATION 3.

first six months of 1918, to just under 110 in 1922 and to 64 in 1923. In that District B was not following our routine in 1922 and half of 1923, we may well record a morbidity rate of 100 for 1922 and 55 for 1923 for a population of 145,000. It may well be added that while we found and investigated over 70 out of every 100 cases of measles during 1917 (if 100 cases to 1 death are standard), less than 40 out of every 100 were found during 1920. In 1922, District B reported 233 cases with 17 deaths in contrast to the 1634 cases with 16 deaths for the remainder of the city. For the nine months, 1924, the morbidity rate is 44, District B participating.

To follow weekly morbidity reports of measles and diphtheria through a series of years is yet more illuminating. Illustrations 2 and 3 are self explanatory. Waterbury, one of the three other larger cities of the State, is shown for the reason that the Census Bureau has no

rates of the other two larger cities of the state are, with reference to epidemic measles, a counterpart of that of Waterbury.

Of no less moment we would cite the statistics of diphtheria morbidity of New York City where attempted control of the disease has been based on Schick work for the past six or more years. New York had a morbidity rate for 1923 of 158 for the first six months period. For 1924 the rate based on the first six months has advanced to one of 196. Measles epidemic in four of the five boroughs may have been the factor in the 26 per cent increase in morbidity.

In sum, variations in morbidity for the disease diphtheria, epidemiologically, statistically and biologically, are, in the main, due to epidemic measles. To a minor degree we have similar evidence that whooping cough, chickenpox, even mumps, may similarly influence morbidity through the production of virulent carriers. There would seem little question but that the

dominance of measles as a factor is by reason of the universality of the head cold of onset in a predominant age group.

The relation of measles to mortality for diphtheria is yet more interesting. If the relation were but one of increased morbidity, yearly case mortality rates would be practically the same. When they are not the same we usually dismiss them as being due to missed and unreported cases or it may be to an unusually virulent type. Following the deaths by years in

falo, New York, Chicago, for Seattle and Portland, Oregon, the last two giving rates as taken from the reports of the Census Bureau. Where the figures are not convincing more frequently true in the metropolitan cities, the time relation of epidemic measles being effective in the usual bed-ridden diphtheria one or more subdivisions of the city in the latter end of the previous year should be first excluded. We may again compare the events in illustration 3, Waterbury. We find that for the six

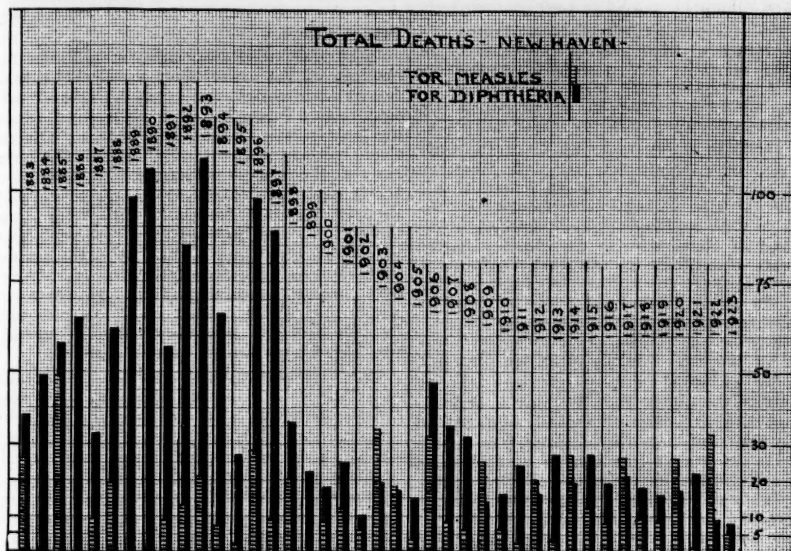


ILLUSTRATION 4.

illustration 1, it would seem rather generally both for the total city and by districts that the years following measles epidemics show excessive deaths with decreased cases. One may fasten on District D for 1915 as an exception. In fact it is according to rule in that the epidemic of measles began in late 1914 in that district. The exception of District D for 1915 with the facts mentioned under morbidity may, on the other hand, be evidence of our preventive work. The same holds true for all the districts for the first half year, 1918 and for the year 1923, District B excepted. The figures for the total city and for the various districts for the measles epidemic in 1920 follow the rule, District A excepted. Illustration number 4 shows the gross deaths by years for measles and diphtheria. The excesses of 1890 and 1893 for 1896 and 1906 for diphtheria compared to preceding measles will be taken up later. We exhibit similar charts for Hartford, Providence, Buf-

months following epidemic measles deaths for diphtheria exceed the total for the previous entire year and that for other six months of the years following epidemic measles a further excess. In other words beginning after epidemic measles is over with, for twelve months we have excessive deaths with declining morbidity for diphtheria. On the other hand in metropolitan cities curves would, as we have seen, frequently show the excess during years of epidemic measles. Here we may again examine the statistics for New York City. With a low mortality of 9 for 1923, varying from 4 for the Bronx to one of 23 for Richmond, based on the six months period of epidemic measles, 1924, the total city mortality rate is 14. That for the Bronx has risen from 4 to 12, Richmond borough alone showing a decrease over 1923 and alone the one borough not showing epidemic measles. Returning to the statistics of our city it may be suggestive that the yearly

mortality rate for 1917 based on the facts of 1914 and 1920, was slightly reduced and that a mortality rate of 9 for 1918 as based on the first six months and the rates of 5.3 for 1922 and 4.6 for 1923 were commensurate with our forces for combat. In terms of our argument, we should compare the mortalities for District B and the city exclusive of that area, for 1922 and 1923. The rate for District B for 1922 was 11 and for 1923 was 14.6 compared to the remainder of the city where a rate of 4.2 held for 1922 and one of 2.8 for 1923. We can show for the nine months of 1924 a yearly mortality of 1.2 per 100,000 of population.

To return to what may be the cause of increased mortality for diphtheria during the year following epidemic measles. During the spring of 1923 wide-spread streptococcal sore throats simulated diphtheria. Cases were mild and antitoxin rarely was used. In the early fall such sore throats were yet more prevalent, of a severer grade of infection and antitoxin frequently used while awaiting laboratory diagnosis. With repeated negative cultures of onset and of contacts, with early and sufficient amounts of antitoxin as are usually curative in diphtheria, 5 of the 7 deaths recorded for latter 1923 were of this type. A simultaneous similar complication occurred in scarlet fever, if it was not one of simulation. From the viewpoint of the older reliable physician all membranous or pseudo-membranous sore throats are either scarlet fever or diphtheria, or both. Irrespective of history, of physical signs and in the presence of negative cultures, such septic sore throats are neglected cases of diphtheria now complicated by other bacteria overriding the diphtheria bacillus. There is a sufficient background of experience among health officers to study this phase of increased mortality from diphtheria. The country over there are years when diphtheria runs true to form and antitoxin is sufficient for cure. There are occasional years when a different more virulent form occurs and where antitoxin has no effect. Buffalo has called attention to it and the record for that city shows the possibility in 1919 and 1920. Other cities show such excesses and they

are the ones previously mentioned. Maximum in this city in 1889 and 1890 for 1896 and less for 1906, for Chicago for 1876, 1889, 1917, for Hartford for 1889, are they the same as our experience of 1923 in maximum amounts? Whether a complicating organism in true diphtheria or a primary invader simulating diphtheria, my experiences of 1917 were that the epidemiology of such septic sore throats was that of convalescent and contact streptococci nasal carriers, nasal carriers like cases indistinguishable often save by the microscope. Again in 1923 epidemiology and bacteriology were in accord.

In sum, diphtheria mortality would seem dependent in the main upon measles epidemics for its excesses and variations. There would seem to be a factor bound up in measles operating later in time or even independently at occasional periods. Personally I am of the opinion that the same streptococcal complications as kill in measles, broncho-pneumonia et al. may likewise later take a similar toll from diphtheria. The important point to be established is that such streptococcal manifestations are not simulators as well as complicators. If they are never primary invaders and can gain their virulence only through their action as complicators, the theory of laboratory control by specific vaccination may control specific diseases.

In conclusion; epidemiologically, biologically and statistically, I am satisfied that I can control the morbidity of the disease diphtheria by the finding and elimination of carriers both virulent and avirulent during and following all respiratory infections, measles in the main. I am not as satisfied that equally satisfactory results are constantly obtainable in the control of mortality from diphtheria. One further aid for the epidemiologist working in the field to be correlated biologically and statistically should be further laboratory aid. When cultures are returned not as negative for diphtheria, but positive for the predominant organism or organisms, I believe the as yet hidden factor in a part of the excessive varying mortality from diphtheria will be solved.

MEDICAL HISTORY

THE ENIGMA OF WATERLOO

How much Napoleon's physical condition may have had to do with the fateful day of Waterloo has been a fascinating field for study by medical historians, and much has been written on the subject. Many different diseases have been accredited to the French Emperor, which supposedly might have caused the marked change in him at this battle; the truth that some definite physical or mental change was present

seems generally accepted by students of the subject.

Cabanés in his "Au Chevet de L'Empereur" adduces evidence that a rectal trouble—hemorrhoids, was a factor in the drama.

Cabanés reminds us that Ravarit, chief of the neurological service at Poitiers, made an exhaustive study of the question of Napoleon's troubles before Waterloo, and is emphatic in his statement that there was no mental condition or change responsible for the defeat.

Cabanés tells us that the day of Waterloo the Emperor was the victim of a hemorrhoidal crisis, which rendered it almost impossible for him to sit his horse, and caused great pain, so much so that he was on foot most of the time. This point, says Cabanés was established beyond the possibility of doubt.

Napoleon wrote in regard to this affection to his brother Jerome, as follows: "I understand that you are suffering with hemorrhoids. The simplest way to get rid of them is to have three or four leeches applied. Since I have used this remedy, that is, for ten years, I have not been tormented." This letter was written in 1807, the affection having returned, Cabanés tells us, during the campaign of Italy. It was observed that on the morning of the 18th the Emperor walked with difficulty, with legs widely separated, "as if he had trouble in his kidney region or thereabouts."

It is unquestionable, says our author, that Napoleon suffered from an acute physical ailment before Waterloo, and that his indisposition had an effect on the result of the battle, but one must not count this as the only cause; to do this would be to forget those general causes which Montesquieu tells us, at times form, and later, precipitate empires. "Napoleon could not escape the inevitable law. If he had not been conquered at Waterloo, he would have been some months, or some weeks later. He could do nothing more against destiny."

Napoleon arrived at Paris on the 21st June, between five and eight in the morning, being received at the Elysee Palace by the Duke de Vincennes, "His censor during his prosperity, and his friend in his misfortune." It was necessary to help Napoleon to his apartments, his secretary observing that he was dead with fatigue, and pain. After a time he said to the Duke, "The army performed prodigies of valor, but a frightful panic seized it,—all was lost. . . . I can do no more."

HOW MOLIERE FIRST CAME TO THE COURT OF LOUIS XIV

ALL that concerns the events in the life of the great French actor and satirist of the medicine of the times is of interest to physicians.

Pardoe, in "Louis XIV and the Court of France," Chapter 25, page 585 *et seq.*, tells us that it was due to Mary de Mancini (one of the nieces of Cardinal Mazarin), that this happy event came about. Mademoiselle de Mancini was one day talking with her cousin, the Prince de Conti, and taking him to task as to his continued absence from Court and the reasons why he had spent so much time in the Province of Languedoc. The Prince told his cousin that he could not leave Béziers, being enraptured by the playing of a company of strolling actors who chanced to be there at the same time. The man-

ager of the troupe, he said, was a certain Jean Baptiste Poquelin, an old school mate at the Jesuit College, whom he had only supposed that he would see again at the post of his father, who was the Royal upholsterer.

Mary grew enthusiastic at the glowing accounts given her of the extraordinary ability of these players, and asked the Prince that he arrange that the troupe come to Paris so that she could see Molière herself. The Prince then told his cousin that he had offered to make Molière his private secretary, and giving him at the same time leisure which he could employ in writing for the stage, but Molière refused this offer, saying he must give all his time and energy to his present profession. The Prince further said that he had not dared recommend his talented friend directly to the King, because the established comedians at the Hotel Bourgoyne would not tolerate the rivalry of an unknown provincial company. After numerous objections from the Queen, which Louis refused to entertain, the new comedians were given a stage in the guard room of the old Louvre. The Prince de Conti then presented Molière to the Duke d'Anjou, and begged that he be under his protection. The troupe was then known as "The Company of Monsieur." At their first performance the whole Court was present, as well as many of the actors of the Hotel de Bourgoyne, the latter coming to see what these country players could accomplish, and how much their presence at Court might menace the established troupe. At the end of the principal play Molière entreated permission to "Contribute to the amusement of the greatest monarch of the world, who had caused him and his followers to forget, in their eagerness to entertain him, that His Majesty had in his service excellent originals, of which they were only inefficient copies."

Two years later, Molière obtained a grant of the theatre of the Palais-Royal, which had been fitted up regardless of cost by Richelieu.

Thus it was, according to this account, that Louis owed his enjoyment of Molière to Mary de Mancini, whose pure and disinterested affection for the King shone forth amid the corruption of the French Court, like the ray from a jewel of great price.

W. P. COUES, M.D., F. A. C. S.

THE WORLD'S CHILDREN

NEW DIRECTOR OF MATERNAL AND INFANT
HYGIENE DIVISION, U. S. CHILDREN'S BUREAU

Dr. Blanche M. Haines has been appointed Director of the Division of Maternal and Infant Hygiene of the U. S. Children's Bureau and will have immediate direction of the National administration of the maternity and infancy act. Dr. Haines was director of the Michigan Bureau of Child Hygiene and Public Health for three years.

Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN
WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY

RICHARD C. CABOT, M.D., AND HUGH CABOT, M.D.
F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 11461

MEDICAL DEPARTMENT

An Italian-American school teacher twenty-five years old entered May 22 complaining of pains in the joints and swelling of the feet. Her family and past history were good. Eleven years before admission she came to the Throat Room of the Out-Patient Department of this hospital complaining of nasal obstruction. This later disappeared. She was ill two weeks with a mild attack of influenza during an epidemic seven years before her admission. Recently she had had two attacks of nosebleed. Before the present illness she weighed 162 pounds, her best weight. She now weighed 148.

Twelve years before admission she was ill for two weeks with "rheumatic fever." Her joints were swollen and tender. The trouble jumped from joint to joint and back again. After this attack she began to have shortness of breath and edema of the feet. That year she had tonsillectomy and adenoidectomy done, although she had never had any tonsillitis. The following year she had a slight recurrence of the rheumatic fever. During the next three years she had no symptoms. Eight years before admission she had another attack of dyspnea and edema. Her pulse was over 100. She had some joint pains but no definite rheumatic fever. She was in bed for three weeks under medical treatment. For the next seven years she did not take medicine, and was without symptoms except that she always got out of breath on going up one flight of stairs.

The December before admission she developed "ivy poisoning" from Christmas wreaths. This lasted several months. In the latter part of March she had gripe—generalized muscular pains, cough, occipital headache and fever of 104°. She continued however to teach throughout the illness. After the week of the spring vacation she was somewhat better, although she continued to have pains in the wrists, elbows, knees, back and shoulders and swelling of the hands. May 12 she had very severe headache and was sent home from school with a temperature of 103°. By medical advice she went to bed on a liquid diet. She had

some swelling of the feet; no cough. Her appetite had been very poor; her bowels, usually regular, had been constipated. May 20 she vomited. Dr. Frank Fremont-Smith adds to this a history that since her attack of "grippe" in March she had been unsteady on her feet, with a tendency to miscalculate and bump into things on the right. This was associated with the progressive headache.

Upon examination she was obese, dyspneic, feverish, and mentally a little sluggish. The skin was pale, particularly on the hands. The cheeks were flushed. The lips showed capillary pulse. The location of the apex impulse of the heart is not recorded. The left border of dullness was in the anterior axillary line 16 cm. from midsternum, 8 cm. outside the midclavicular line. The right border of dullness was 3.5 cm. from midsternum. The supracardiac dullness was 6 cm. The heart action was somewhat irregular, with premature beats. There were systolic and diastolic murmurs at the apex, along the left sternal border and at the aortic area. The aortic second sound was snapping. The pulses and artery walls were normal. The blood pressure was 160/35/0-143/48. The lungs showed inspiratory râles at both bases and in the left axillary line below the seventh rib. The abdomen was obese. There was tenderness in the right upper quadrant. No liver edge was felt. There was no enlargement to percussion. The spleen was just palpable. Pelvic examination showed a white rather thin discharge. Rectal examination showed external hemorrhoidal tabs. There was slight edema of the ankles. The fingers showed possible clubbing. The pupils were normal. There was questionable slight stiff neck and questionable Kernig, probably not pathological. Fundus examination showed marked neurorinitis in both eyes, more in the right, nerve heads swollen, veins dilated and tortuous, several areas of hemorrhage and exudate.

Before the combined puncture the temperature was 99° to 102.7°, the pulse 83 to 111, the respiration 27 to 20. The amount of urine is not recorded. The specific gravity was 1.020 to 1.022. There was the slightest possible trace of albumin at both of two examinations. One specimen, taken by catheter, showed (20—25) red blood corpuscles per high power field; the other, not a catheter specimen, showed leucocytes and occasional red blood corpuscles. Culture from the catheter specimen was sterile. Renal function May 24 was on time, 10 per cent., May 25 four hours late, 30 per cent. The blood showed 18,100 to 14,200 leucocytes, 81 per cent. polymorphs, hemoglobin 70 to 75 per cent., 4,552,000 to 3,592,000 reds, slight anisocytosis and achromia. No endothelial phagocytes were seen. A Wassermann was negative. The non-protein nitrogen was

32 mgm. A blood culture May 23 showed streptococcus viridans in both flasks. X-ray showed the bones of the skull unusually thick. There was considerable variation in density and the outline of the inner table was irregular. The sella turcica was small, normal in shape. The clinoid processes were heavy. Question of exostosis cranii.

limbs when held elevated off the bed, more marked on the right. Dr. Frank Fremont-Smith believed a lumbar puncture in the case would be dangerous and doubted the advisability of operative or investigative procedures unless the cerebral condition became much more urgent. May 27 there was a large shower of petechiae on the outer surfaces of



PLATE I. The bones of the skull are unusually thick. There is considerable variation in density, and the outline of the inner table is irregular. The sella turcica is small, normal in shape. The clinoid processes are heavy. Question of exostosis cranii.

The morning after admission petechiae were noted. The headache had disappeared. Next day Dr. Maurice Fremont-Smith noted nystagmus. In the course of that day a shower of petechiae appeared on the left palm. Next day there were others on the right palm and the extreme ends of the toes.

May 26 a neurological examination was negative except for ataxia of both legs, more marked on the right (heel to knee test). There was also gross spontaneous tremor of the lower

both arms. The patient was irrational. Dr. W. J. Mixter said in consultation that operation in such a case would carry a very high mortality, and suggested combined ventricular and lumbar puncture.

May 29 combined puncture was done. The initial pressure was 280 mm. This was reduced to 150 mm. before the lumbar region was tapped. The ventricular and lumbar pressures at this time were each 150, the pulse and respiratory oscillations were equal and

normal, and there was prompt and equal rise and fall on jugular compression and release. Withdrawal of fluid from either needle caused an equal drop in pressure in each region. The findings were those of moderately increased pressure without dynamic block. The spinal fluid showed a negative Wassermann, total protein 77, goldsol 0000121100, sugar 56, chlorids 681. Fluid from the right ventricle showed total protein 114, goldsol 0000022210, sugar 57, chlorids 686. The blood plasma showed sugar 111, chlorids 565. Following the puncture the headache was relieved. June 1 it returned and there was partial left facial weakness.

June 1 operation was done. A few days later the patient pulled off the dressing and pulled the edges of the wound apart. The



PLATE II.

wound however healed satisfactorily. There remained a slight non-fluctuant swelling to the right of it. June 12 the patient was mentally clearer but still irrational. The headache was less. Five doses of gentian violet were given, with no apparent effect. Blood culture June 21 showed streptococcus viridans in both tubes. June 24 there was a bulging pulsating area in the region of the occipital wound. June 29 she was in semicomatose. The eye grounds showed definite choking with hemorrhages. No petechiae had been seen for some time. She ran a temperature of 100° to 104.9°, a pulse of 109 to 157, respiration 20 to 31. The eye grounds showed many emboli. July 2 a blood culture showed streptococcus viridans in both flasks. Another lumbar puncture was done without injury or benefit. It gave 15 c.c. of opal-

escent fluid, initial pressure 130, rise on jugular compression 300, fall on release prompt, pressure after withdrawal of 15 c.c. 60, cell count 1,300, 70 to 80 per cent. polymorphonuclears, 10 per cent. large mononuclears, 15 per cent. red blood corpuscles, chlorids 622, total protein 114, sugar 23, goldsol 1122245422, culture negative. The leucocyte count was 38,400 and continued to range from 24,500 to 31,000. The hemoglobin was 35 to 45 per cent. The red count was 2,160,000 to 2,850,000, with marked central achromia, no variation in size at one examination, slight achromia and slight variation in size at another. The platelets were slightly increased at one examination, normal at another. July 12 there was moderate tenderness about the neck on movement. The patient had been mentally clearer for the past two days. July 22 an attempt at transfusion was unsuccessful after two hours. Both arms showed many thrombosed veins, none patent. July 30 she died.

Note by the senior house officer, Dr. D. R. Higbee. Definite clubbing of the fingers developed while the patient was in the hospital. The neurological symptoms except for drowsiness were of minor importance during the last four weeks. The second lumbar puncture was done because the herniation of the brain seemed to be increasing a little.

DISCUSSION

BY DR. RICHARD C. CABOT

NOTES ON THE HISTORY

1. I do not see that we can get anything out of the first paragraph of this history. I do not.

2. Her trouble jumped from joint to joint and back again, but apparently left the joints all right in the end, so that we can say it had the characteristics of a true rheumatic fever, going from joint to joint but leaving them sound. After this she had shortness of breath and edema of the feet, so that we suspect that the heart was affected.

3. It was wise, I guess, to do the tonsillec-tomy. We used to say that we did not take out the tonsils in relation to heart disease unless there was some evidence of tonsillitis. But we have seen so many cases in which there was improvement in joint symptoms following the taking out of any tonsils that we could find, diseased or sound, that we are rather apt to advise it. Apparently it was not so successful in this case.

4. So far we should say, a typical case of heart disease. Then she got a dermatitis venenata from something, presumably not ivy, in Christmas wreaths. It is very hard to make ivy leaves stay in a wreath. I do not believe there were any there.

5. She had a tendency to "miscalculate"—not in figures—and to bump into things, which

is the same tendency to unsteadiness; so she has some ataxia.

6. We have had first the evidence of rheumatic infection, apparently with heart disease following. Then we have a new train of symptoms beginning about two months back, with two facts standing out which we have not had before: with progressive headache (progressive I suppose means getting worse) and ataxia. Neither of those, as I see it, has any direct connection with rheumatic heart disease. We can imagine (a) an indirect connection through cerebral embolus. But cerebral embolus is always so far as I knew a stormy affair beginning at a particular moment with acute symptoms. Or (b) we could imagine an infection hitting the kidney, that is, the bacillus of the streptococcus-pneumococcus group which we have associated with many heart troubles—not all—may have affected the kidney with uremia and so uremic ataxia following. Neither of those things seems to me probable.

NOTES ON THE PHYSICAL EXAMINATION

There was marked transverse enlargement of the heart.

Both blood pressure measurements show that she must have a Corrigan pulse. Does the zero mean anything?

MISS PAINTER: The blood pressure is recorded that way.

DR. CABOT: My guess is that it means there was some change, from a sharp sound to a dull sound,—a sharp sound at thirty-five, then the dull sound kept on all the way to zero. Generally this is the pressure that goes with Corrigan pulse and aortic regurgitation.

Clubbing of the fingers would naturally associate itself with the heart trouble which we believe she has had for a number of years.

The questionable Kernig is probably not pathological. She has had trouble in her knees. There is probably a little stiffness there which would make one think she had a Kernig when she did not.

I should say that this was a negative urine. I can conclude nothing from the renal function.

There is a secondary anemia, presumably due to the infection, whatever it is, that she has been suffering from.

The non-protein nitrogen goes along with what we have said about the kidney,—that there is no evidence of uremia.

They found the streptococcus viridans; in all probability therefore there is acute endocarditis.

Dr. Holmes, I suppose you have heard the record. Did they ask you to take these pictures with reference to the possibility of tumor? There is nothing else they could ask you to see in there, is there? You cannot see meningitis? You cannot see cerebral embolism?

DR. GEORGE W. HOLMES: Not unless there

is calcification. In this statement it said that the X-ray showed the bones of the skull unusually thick. Of course that is just a guess. We see a good many skulls and they vary tremendously. We make a statement that they seem unusually thick to us. It has very little bearing on the patient's disease. Of course there are conditions in which we get a very definite thickening, like Paget's disease and syphilis. In addition to this it says there was variation in density. Variation in density may be due to intracranial pressure or it may be due to piling up of bone on the inner plate of the skull. That was the interpretation here. I do not know what that means or what it amounts to. We certainly see it in cases that have no symptoms. It occurs quite frequently in lues. I do not think it can be said that it is associated with any brain tumor except a localized thickening. That is, we sometimes get a localized increase in bone density directly over it and sometimes a localized diminution in density. But this case does not show that. This is a rather diffuse process involving the whole plate of the skull.

This triangular area of diminished density in the vertex of the skull is probably where the fontanel was. It is just an anatomical variation. I think it is not unusual to have an incomplete closure or a marked variation in thickness at that point. The suture line comes here.

The bones all through the skeleton vary tremendously. The ridges and thickness of the cortex varies; particularly, a muscular person will have more prominent ridges and heavier cortex vary; particularly, a muscular person the skull.

The second plate is the anterior-posterior view. Here again we see these marked irregularities, very prominent ridges, none of which have any definite pathological significance. Then the sella turcica is spoken of as being rather small but perhaps within normal limits, and I should agree. We can see the outline of it. It is a rather small one, but it is apparently smooth. We must have a considerable variation from the normal before we can say that it is pathological. It is possible to get a wide variation in the plates in normal cases.

DR. CABOT: I wish you would say a few words about the sella turcica. I have seen a great many remarks about it in X-ray reports, and they often mean nothing to me. You say that to be pathological there has to be a very wide and characteristic variation. What is a wide and characteristic variation?

DR. HOLMES: A very definite change in shape. There are a number of shapes that are normal and we have to keep all those in our minds. But all changes that do not correspond with any known norm. Then we must rule out any distortion due to position. It is perfectly possible in taking these plates at a little different angle to make such distortions.

In these plates one jaw is a little lower than the other. That means the head was distorted. That would throw the sella turcica down behind the bones of the skull and make it appear smaller. If we are sure that we have a shape that we have never seen before we are justified in saying that there is something. It may be an anatomical variation. If the sella turcica is very large and if the floor is thinned out and rough in its outline, that suggests a tumor within the sella. That is quite a definite finding. The floor should be smooth. Then too if the posterior process has been destroyed, that is pretty good evidence of erosion from without or within. Occasionally we get a sella turcica pushing the spinal processes downward and forward.

DR. CABOT: I find it hard to understand how a thing as soft as a brain tumor can push down and displace a thing as hard as a bone.

DR. HOLMES: I think that is in the same way that aneurism does. The whole brain is pulsating. It is like water on a rock. Dr. John Waters Camp has published a study of the size and shape of the sella taken from a large number of brains. It is in the *American Journal of Roentgenology*.

A PHYSICIAN: Is there any significance to this remark about the clinoid processes being heavy?

DR. HOLMES: I do not think so. It is probably part of the same process that we see in the skull. All the bones in the skull are heavy. I do not think from these X-rays that we have anything to correspond to a definite lesion unless we want to call it syphilis.

DR. CABOT: I am very glad that we have been able to get Dr. Holmes' teaching today. The thing we all need to know most is what is normal, and what a lot of queer things are normal. In the thing I understand best, the chest, most people do not know how very "abnormal" a normal chest can be, how very queer things one can hear in the heart and lungs while yet they are all right. I think clinicians are very slow to find out what is normal.

DR. HOLMES: We have added to that all the distortions that can come in taking the plates.

DR. CABOT: Summing it up, Dr. Holmes, there is no evidence of brain tumor in those plates, or of anything else wrong in the brain?

DR. HOLMES: I think we have to mention this tendency to new bone formation on the inner plate of the skull. I cannot interpret it. I do not know what it means. It might be normal.

DR. CABOT: In the toes is a favorite place for the embolic lesions of acute endocarditis. Dr. Osler pointed it out first many years ago. Perhaps some remember how that happened to come to light. I have just been reading his life. Osler was very friendly with his patients, even with the patients in the wards, and when he did not have time to stop to shake hands or-

dinarily he would put his hand on the beds as he went by. And as their feet were nearest to him and he couldn't so quickly shake their hands, he would shake their toes. He found that certain of his patients winced when he took hold of their toes. That is how he noticed the symptom of tender toes in typhoid fever first and then in acute endocarditis,—because of his habit of taking hold of their toes as he walked past their beds.

Lumbar puncture would here be dangerous, of course, on account of the possibility of brain tumor and the sinking down of that tumor into the foramen magnum after the fluid was taken off.

Petechiae on the outer surfaces of both arms is one of the mysteries of medicine. Why? We say the mechanism is that they are being thrown off from the heart valves. But why and how can they symmetrically hit only these two sets of vessels? There are none so far as I know that are of different sizes from other vessels in other parts of the body. It is very extraordinary, this distribution of petechiae.

They got around the danger of tapping by letting out the fluid at the top first. There was no block between the two points. There was no special reason that I can see to expect block. I think they did the combined puncture to avoid the danger of squeezing the brain into the foramen magnum.

I do not remember what the chlorid figure ought to be. The other figures are about normal. In the ventricular fluid the great difference is that there is a good deal more protein, that is, a good deal more evidence of a tissue reaction in the ventricle than below.

Headache relieved is what we expect. We can almost always relieve the headache of meningitis or of brain tumor if we can get so far as tapping the ventricle. But headache usually returns because the fluid does.

Since an operation was done we have to try to imagine what they are operating for. I take it we all assume that the underlying and probably major factor in this case is acute and chronic endocarditis of the aortic valve, very possibly also of the mitral. With that in our minds we naturally ask, can there be cerebral embolism? I cannot exclude it. But I have never known cerebral embolism without a more sharply marked beginning than this had. Still I do not know enough to say that it cannot occur. We hesitate to say she has two distinct diseases such as cerebral tumor and acute endocarditis. We should like to bring all the facts under one explanation if we can, because then we are more likely to be right. I do not know what they are operating for. I do not see that they have sufficient evidence of brain tumor to go in. Things are very little localized. There is a little more in the way of symptoms on the right side than the left. But I do not see how they are sure whether they should

go above the tentorium or below it, or which side. I am sorry Dr. Mixer is not here to tell us. But my guess is that he did not go in for brain tumor, that he went in to relieve something that he thought he could relieve, without knowing exactly the localization of the trouble. Just what that something was I do not know. It is possible that he is thinking of abscess. An abscess could be produced by bacteria thrown off from the heart valve, and it is possible that the increased protein in the ventricles is connected with that. We have fever and leucocytosis, which however can be accounted for without supposing any local brain lesion. Nystagmus and ataxia are rather basal, rather point to sub-tentorial lesions, and so I tend to feel that he will go in below the tentorium. Also I tend to feel that he will go on the left side. But I feel very vague about the whole problem aside from the heart.

DR. CABOT'S PRE-OPERATIVE DIAGNOSIS

Brain abscess?

PRE-OPERATIVE DIAGNOSIS JUNE 1

Possible cerebellar abscess, right.

OPERATION

Ether. A vertical incision was made over the right occiput. A trephine opening was made and enlarged and various portions of the right cerebellum and extracerebellar region were explored with a needle for possible brain abscess, but no abscess was found.

FURTHER DISCUSSION

I am glad we did not localize this abscess, as long as it was not there.

I have seen no reason as yet to be enthusiastic over gentian violet as a way of curing general septicemia.

They got the streptococcus viridans every time they took a culture apparently. I have never known the fishing so good.

The goldsol curve is characteristic of nothing.

There is very rapidly developing anemia of the septic type.

The finding of thrombosed veins when transfusion was tried is very interesting, because there is no pain. There has been nothing about pain or edema in the arms to make us think of the veins as thrombosed. It is an entirely new idea to my mind that one can have thrombosed veins without any symptoms. What was the purpose of the transfusion?

MISS PAINTER: I do not know.

DR. CABOT: I guess they thought she was going to die unless they did something and could think of nothing else to do.

MISS PAINTER: They mention increasing anemia.

DR. CABOT: Yes, but of course with increasing anemia of this type we do not gain anything from transfusion.

The house officer's note about the clubbing of the fingers is queer because it is mentioned in the entrance examination.

MISS PAINTER: That was questionable.

DR. CABOT: I see. It became more definite. That is interesting, because she was in the hospital only two months.

DIFFERENTIAL DIAGNOSIS

We have certainly an acute or subacute endocarditis, presumably on the aortic valve, very possibly on the mitral as well, with a basis of old endocarditis which should be marked on the aortic, and may be present on the mitral also. With that there should go a hypertrophied and dilated heart, possibly intracardiac thrombi. This trouble is due obviously to the streptococcus viridans, the typical organism of this lesion. We have many emboli showing in the retina, in the skin, and apparently in the veins of the arms. They are presumably elsewhere, the spleen and kidneys being the most probable places for infarcts to be shown.

Aside from that the interesting question is, what is going on in the brain? We have one very important fact,—the 1300 white cells in the spinal fluid.

MISS PAINTER: They were not allowed to examine the head.

DR. CABOT: Then we are not going to know, but we may as well say what we guess. I guess cerebral abscess. I think it is possible that there is an infarct that is not septic, and that infarct could produce this amount of irritation. As to meningitis, we do not seem to have enough mental symptoms to suppose that the cortex of the brain was much affected. But we never shall know.

Leaving out the head, the heart ought to be the thing of importance, and aside from the emboli, which I have gone into as far as I know how to, I do not know what else this case should show. It is just the kind of case that often shows an acute glomerulonephritis, but we have no evidence of it and cannot say it is there.

A PHYSICIAN: How do you account for the nystagmus and ataxia?

DR. CABOT: I don't account for them. I do not know how.

A PHYSICIAN: Does this organism sometimes produce a meningitis?

DR. RICHARDSON: We might get it of course. I do not remember seeing it. We do not always get the head, and cannot say.

DR. CABOT: You would not like to deny that it might produce meningitis?

DR. RICHARDSON: No. I am more inclined to think, though, that it is edematous rather than abscess.

A PHYSICIAN: If the endothelial phagocytes had been found what would be the significance?

DR. CABOT: There have been three cases here in which they were very numerous. Two of

those cases were acute endocarditis. What the connection is we do not know, or why they come into the circulation in some cases and not in others. But in the cases which we know or believe are acute endocarditis we look for them. I remember a case in which they were in every field, enormous beasts wandering around, eating up everything in sight,—a most extraordinary picture.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Subacute bacterial endocarditis, aortic and mitral valves.
Multiple infarctions with central venous system involvement.
Congestive failure.

DR. RICHARD C. CABOT'S DIAGNOSIS

Chronic and acute endocarditis of the aortic and mitral valves.

Hypertrophy and dilatation of the heart.
Infarcts of the spleen and kidneys, etc.
Cerebral abscess?

ANATOMICAL DIAGNOSIS

1. Primary fatal lesions

Chronic and acute endocarditis of the aortic and mitral valves.

2. Secondary or terminal lesions

Hypertrophy and dilatation of the heart.
Fibrous myocarditis.
Hydropicardium.
Infarcts of the lung, spleen and kidneys.
Acute localized peritonitis.
Soft hyperplastic spleen.

3. Historical landmarks

Chronic passive congestion.
Chronic pleuritis, left.

DR. RICHARDSON: The ankles and feet were slightly swollen and pitted on pressure. There was a small area of decubitus.

There was slight congestion of the gastrointestinal tract.

There were a few pleural adhesions on the left posteriorly and to the diaphragm. There was much brownish-red frothy fluid in the trachea and bronchi. In the right lung, in the region of the anterior border of the upper lobe midway, extending from the pleura inward, there was a frank infarct six by four by two cm.

In the pericardium there was a slight excess of thin pale clear fluid. The heart weighed 560 grams,—markedly enlarged. The myocardium generally was brown-red, thick, five millimeters on the right, fifteen millimeters on the left. There was considerable dilatation of the left ventricle, and a slight amount of the auricle; on the right, slight dilatation. The mitral valve circumference was ten centimeters. The valve

showed some diffuse fibrous thickening, chronic endocarditis, and at two points on the anterior cusps small masses of acute vegetations. Extending up, as usual in these cases, from the posterior cusp margin on to the auricular wall there was a thick patch of vegetations two and a half by two centimeters. The aortic valve measured seven centimeters. The anterior cusp and a portion of the left posterior cusp presented a mass of brownish red soft vegetations two and a half by two by one and a half centimeters—quite a substantial mass of vegetations—springing from the inferior surface of the cusps. At the base the vegetations were older. A granular patch extended down from this mass on to the posterior wall of the anterior cusp of the mitral valve. There was another small patch just above the anterior aortic cusp. This mass considerably obstructed the opening of the aortic valve.

The liver showed slight passive congestion. The spleen in this case, as in one other that we have had, was slightly enlarged, weighing 285 grams, and contained several infarcts, one quite large. The outer surface of this infarct was on the superior surface of the spleen, sticking the spleen to the inferior surface of the left lobe of the liver, with an area of peritonitis in this region. This particular infarct was broken down and soft. Endocarditis then may be the cause of peritonitis, as it was in this case. The other infarcts were a little firmer. This one happened to be near the surface, broke down, became glued to the peritoneum, and set up a peritonitis. Presumably something of this sort occurred in the brain.

The kidneys weighed 340 grams and except for infarcts were negative. The infarcts in the kidneys were all of pretty good size, some of them two and a half centimeters across.

DR. CABOT: Dr. Holmes, you would say, wouldn't you, that in view of this necropsy your interpretation of this X-ray plate as a normal skull was supported? There is nothing that is likely to have happened in this case which would make those changes?

DR. HOLMES: No. I do not know what effect a longstanding poor blood supply would have. That might produce some overgrowth. I wonder whether that might have something to do with the increased thickness of the skull and these irregular markings.

DR. CABOT: The clubbed fingers, if they go on long enough, go on to bony changes, and it is conceivable that something like that might happen in the skull.

A PHYSICIAN: This case seemed clinically to show characteristics of aortic regurgitation. That was not found post-mortem?

DR. CABOT: Yes. This lesion would not allow the valve to open or to shut properly, either one. I think the necropsy perfectly backed up what we thought.

CASE 11462

SURGICAL DEPARTMENT

A man of seventy entered the hospital July 30 complaining of hematuria of two weeks' duration. His family and past history were good. He had always been well and strong and except for two attacks of pneumonia, one when he was forty-five and the other at forty-seven, he had had no serious illnesses.

Ten years before admission he had acute retention. A one-stage suprapubic prostatectomy was done at a hospital in Boston. Since that time he had urinated every half hour by day and once or twice at night. He had no trouble in passing the urine until the year before admission. Then he had acute retention, and had to be catheterized once. There was no hematuria. Two weeks before admission he again had acute retention requiring catheterization. The urine was bloody. He was catheterized about six times. Finally he became able to pass urine without difficulty. The hematuria however had persisted.

Examination showed a well nourished old man in no apparent pain. The apex impulse of the heart was not found. The percussion measurements are not recorded. The sounds were not of good quality. The pulses and artery walls were normal. The blood pressure was 160/98. The lungs were clear. The abdomen showed a general bulge of the lower rectus muscles and the median suprapubic operation scar. The prostate was symmetrically enlarged and uniform in consistency.

Before the second cystoscopy the temperature was 96.9° to 99.3°, the pulse 62 to 100, the respiration normal. Afterwards the temperature was 98.4° to 104°, the pulse 86 to 125 with a terminal rise to 160, the respiration 17 to 46. Before cystoscopy the urine was red at both of two examinations, alkaline at the first, specific gravity 1.010 to 1.022, a trace of albumin at both examinations, loaded with red blood corpuscles at the first, 15-20 reds and a few leucocytes per high power field at the second. The patient was put upon continuous drainage. August 1 the urine was clearing up and he was taken off the drainage. August 4 a cystoscopy was unsatisfactory on account of bleeding and the length of the prostatic urethra. August 5 a second cystoscopy was also unsatisfactory because there was so much prostatic enlargement that the cystoscope could not be passed into the bladder, or else the bladder was full of clots. Nothing could be seen.

August 6 operation was done. The patient made a good ether recovery, was fairly comfortable and did fairly well for the next few days. August 12 he was having quite severe hiccups and was also unable to swallow. The following day a medical consultant found many moist râles at the right base with no consolida-

tion. The heart sounds were distant and rapid. He prescribed digitalis, and if the non-protein nitrogen were not high advised morphia for the hiccup. On the 16th he found the lungs as before. The abdomen was soft. He reported, "Abdomen soft. Hiccup now seems to be a combination of cough in addition to hiccup. Hyoscyamine might be tried, but I doubt if medication will stop this symptom." The patient complained of "filling up with fluid."

August 16 X-ray showed the diaphragms apparently both normal in position. The left costophrenic angle was clear. The right costophrenic angle was apparently obscured by an area of dullness which rose toward the axillary border. There was some mottled density of the lower right lung field. The extreme apices appeared clear on both sides. The left lung field was clear. The supracardiac shadow was long and wide. The aorta appeared somewhat tortuous. The findings were those of a pathological process at the right base, probably a small amount of fluid in this area, although there was a possibility that the dullness might be due to artefact. August 18 the temperature rose, probably because of the stoppage of the drainage tubes. August 19 another X-ray was unsatisfactory because of underexposure. It was thought that if there was fluid at the right base it was probably very small in amount.

August 20 the patient vomited several times. The hiccup was better. He was slightly delirious at times and looked weaker than he had at any time previously. In the evening the temperature was 104°. It continued to range between 100° and 103.3°. He gradually weakened, became irrational, and would not take fluids or food unless they were forced upon him in very small amounts at frequent intervals. August 27 he died.

DISCUSSION

BY DR. EDWARD L. YOUNG, JR.

Of course it depends a little on the type of prostate that this patient had ten years ago as to how much trouble he should be having now. If he had an adenomatous prostate its removal as in the majority of cases should result in a cure so far as further acute retention is concerned. If it was the fibrous contracting type it would be much more difficult to get a complete cure from an operation. Continued treatment is often necessary to make the result good. Occasionally the wound resulting from the removal of an adenomatous prostate will contract and make trouble, but that is not common. It seems as though there might be something more than the prostatic condition because of the continued hematuria. That is, either there is a malignant degeneration because of scar and imperfectly removed prostate or possibly because of the poor result there has been a sec-

ondary stone formation. In that case however we ought to hear more about urinary trouble and pain. Of course it is possible that there is still a large prostate, because some small part had been left behind at the first operation and this had grown again. This has been known to happen even in the best of hands.

The examination would seem to bear that out, in that they say the prostate was symmetrically enlarged.

The further account of the story also suggests that the diagnosis is a large prostate and that the bleeding might come entirely from it, although this should never be assumed, as a tumor of the bladder is not uncommon. It would seem as though the only thing to do was to open the bladder above the pubis. If there is tumor deal with it as its situation and size demand. If the trouble is entirely prostatic leave the patient on drainage for a second stage.

DR. YOUNG'S PRE-OPERATIVE DIAGNOSIS

Adenomatous prostate.

PRE-OPERATIVE DIAGNOSIS

Prostatic obstruction.

OPERATION

Under local anesthesia an incision 14 cm. long was made suprapubically. On account of the patient's straining and the fact that the approach to the bladder was difficult because of the previous operation the patient was given ether. On opening the bladder an enormous intravesical prostatic lobe was felt which almost filled the bladder, also two large lateral lobes. It seemed best to do immediate prostatectomy, as drainage by suprapubic tube would have been difficult. A large amount of prostatic tissue was enucleated with some difficulty owing to the scar tissue from the previous operation. There was a moderate amount of hemorrhage. A catheter was passed in the urethra. The prostatic cavity was packed with gauze. The bladder was closed around a suprapubic drainage tube.

The patient stopped breathing at one time in the operation, became very blue and aspirated some vomitus. By artificial respiration, dilatation of the sphincter and administration of fifteen millimeters of adrenalin he regained good condition.

PATHOLOGICAL REPORT

A number of irregular soft nodules forming a tumor the size of a tennis ball. On section they show moist lobulated surfaces.

Microscopic examination shows lobular hyperplasia of the gland tubules and papillary ingrowths of their epithelium.

Adenomatous hypertrophy.

FURTHER DISCUSSION

I am a little surprised that they should attempt a one stage prostatectomy, because we know that he has had trouble for a long time and the kidneys ought to be considerably damaged, and that six days of urethral drainage is not sufficient to bring back the kidney function to its highest point. It might well have been that suprapubic drainage would be difficult, but it would at least have been adequate and given the man a little longer chance to get in better condition. Of course it is true that longer drainage might not have avoided the accidents, and it is also true that hindsight is always better than foresight. Nevertheless his condition after operation would seem to be a combination of the strain of operation plus trouble in the chest. How far that was due to the trouble during the anesthesia it is hard to say.

Hiccup is always a serious sign in these conditions and is apt to point toward failing kidney compensation. I think that the cause of death is the combination of trouble above the diaphragm and renal insufficiency. Dr. Richardson will tell us that the kidneys are considerably damaged and that there is sepsis above the diaphragm consistent with what was found by X-ray.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Adenomatous prostate, obstructing.
Bronchopneumonia.
Suprapubic prostatectomy.

DR. EDWARD L. YOUNG'S DIAGNOSIS

Renal insufficiency.
Pneumonia.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesion*

Adenomatous hypertrophy of the prostate.

2. *Secondary or terminal lesions.*

Putrid bronchitis and bronchopneumonia with abscesses.
Partial prostatectomy.
Fibrinous pleuritis.
Edema of the lungs.
Slight diphtheritic cystitis.

3. *Historical landmarks*

Chronic pleuritis.
Cholelithiasis.
Slight chronic pericholecystitis.

DR. RICHARDSON: The head was not examined.

The ankles were slightly swollen and pitted on pressure. Pubes up there was an open wound 6½ cm. long, continued as a linear scar 3 cm. long.

The stomach contained much thin cloudy grayish-brown fluid. The mucosa was rather flat and pale. The small intestine contained much thin brownish opaque fluid material. The large intestine contained much yellowish semi-fluid opaque material.

The liver was 3 cm. below the costal border. The diaphragm was at the fifth rib on the right, the fifth interspace on the left.

In the right pleural cavity there was about 100 c.c. of thin cloudy fluid and fibrin. The left pleural cavity contained about 200 c.c. of similar fluid. Pleural adhesions: right, posteriorly from upper lobe and a few to the diaphragm; left, at the apex and a few to the pericardium and diaphragm.

The trachea and bronchi contained much dirty frothy fluid with innumerable minute to small necrotic fibrinous masses. The mucosa was dirty dark reddish and bathed with the material mentioned. The bronchial glands were moderately enlarged, pigmented, soft and juicy.

The right lung was voluminous. The tissue of the middle lobe was spongy and infiltrated with dirty reddish frothy fluid. The tissue of the lower and upper lobes was boggy, dark red, and markedly infiltrated with dirty reddish frothy fluid. The section surfaces here and there showed areas of bronchopneumonia, more or less necrotic in instances, and in others showed abscess formation. The cut ends of the bronchi yielded purulent fluid and minute necrotic fibrinous masses. The pleura of the lung was coated with fibrinous exudate in places.

The left lung was rather voluminous. The tissue of the upper lobe was saturated with dirty pale red frothy fluid. The tissue of the lower lobe was similar in character to that of the lower lobe of the right lung. The pleura showed slight coating with fibrinous material in places.

The heart weighed 325 grams. The myocardium was flabby and pale brown red. The aorta showed a slight amount of fibrous sclerosis.

The gall-bladder was contracted down about an irregular mass made up of innumerable small stones from 1 mm. to 8 mm. The mucosa showed shallow pocketing in places and the wall generally was flattened and thin. There were a few old adhesions extending from the bladder to the hepatic colon. The bile ducts were free and frankly negative. The pancreas and duct of Wirsung were negative.

The spleen weighed 175 grams. The tissue was rather soft. The kidneys combined weighed 360 grams. They were negative microscopically and macroscopically.

The mucosa of the bladder presented several small scattered dirty reddish velvety patches the surfaces of which in instances were coated

with dirty grayish granular fibrinous material. In the situation of the prostate there was a thick fibrous shell with a few small masses of prostatic tissue still remaining. Posteriorly and a little to the left in close association with the shell there was an ovoid nodule of prostatic tissue about 4 cm. by 2½ cm. The inner surface of the shell was a little irregular but was fairly clean.

The death in this case was due to the putrid bronchitis and bronchopneumonia with abscesses.

DR. YOUNG: According to Dr. Richardson's report the accident during anesthesia was more important than we thought, as this is the type of lung trouble which we associate with aspirated vomitus. I am surprised that the kidneys were in such good shape, but it shows the amount of punishment they can stand without becoming badly damaged.

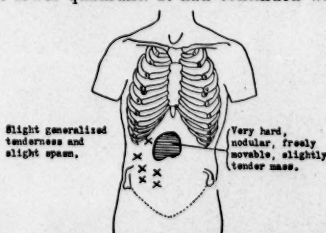
CASE 11463

SURGICAL DEPARTMENT

A Russian Jewish widow sixty-eight years old was referred from the Out-Patient Department July 18 complaining of pain in the right side. She had had a "stroke." An incomplete history was obtained through her daughter.

Records of the Out-Patient Department show a visit to the Nerve Room twelve years before the present admission. A diagnosis of aphasia, sensory and motor, and pains in the right hand was made.

Five weeks before admission she began to have pain which seemed to be located in the right lower quadrant. It had continued without



change since the onset. She had raised a good deal of gas. She said she had taken butter, milk and soup. When asked by her daughter if she vomited it she said "yes." When asked by another person if she kept it down she said "yes" again. Her bowels had always been constipated, moving only every other day and then with a cathartic. During the present illness they had moved about every third day.

Upon examination she was found to be obese, but except that the abdomen was very full and rounded she looked as though she had lost some weight. The signs in the abdomen were as shown in the diagram. Pelvic examination

showed the perineum very much relaxed, with cystocele and moderate rectocele. The cervix was lacerated, the lips hard. There was slight paresis of the right arm and leg.

The blood showed 12,000 leucocytes, 74 per cent. polynuclears, hemoglobin 80 per cent., 4,770,000 reds. The smear showed slight achromia, no other abnormalities. A Wasser-



The colon is well filled. There is a questionable irregularity in the region in which the mass is described. This might be due to pressure or spasm. It has not the mottled appearance characteristic of cancer. The plates are unsatisfactory. Diagnosis was deferred.

Before operation the temperature was 98.4° to 100°, the pulse 80 to 100, the respiration normal. The urine was cloudy at both of two examinations, the specific gravity 1.026, 4-6 leucocytes per high power field at one exami-

mann was negative. The fasting contents of the stomach were 150 c.c. of light brown watery material, no free acid, combined acid 15, guaiac negative. Microscopic examination showed rare leucocytes, no blood or organisms. No

test meal was given. By X-ray the stomach appeared in the usual position, normal in size. No definite filling defects could be seen. There was no retention from the motor meal. The palpable mass appeared just below the greater curvature of the stomach. The first portion of the duodenum appeared normal. The six-hour meal had reached the cecum. There was no definite evidence of organic disease of the stomach or duodenum. The tumor mass appeared to be extrinsic. Plates of a barium enema were unsatisfactory. (See illustration.)

July 23 operation was done. The patient did well for the first five days. Then she vomited fluid, as before operation, and did not retain tap fluid. She had one X-ray treatment before August 1 with no reaction. August 10 she was vomiting everything eaten and was anuric. A catheter specimen of urine showed sugar. The blood sugar was 500 mgm. per 100 c.c. An effort was made to combat the dehydration with subcutaneous, as she could retain nothing by mouth or by taps. She was too weak to have more X-ray treatment. She vomited several ounces of bright blood. August 13 she died.

DISCUSSION

BY DR. EDWARD L. YOUNG, JR.

No definite background as a cause of this pain is given.

The diagram shows a mass above the umbilicus, slightly to the right.

The urine not being a catheter specimen, the leucocytes are of no importance.

The blood is essentially negative.

Here is a woman with very little to go on except what we can feel and what can be found by examination. That is, we are not dealing here with an intelligent patient who can give an intelligent history. First, what are the possibilities with that mass? At sixty-eight, with the loss of weight even without any other symptoms, I think carcinoma is one of the first things we consider, and the colon is the most probable site. It is freely movable, which would seem to rule out a retroperitoneal mass or a cyst of the pancreas. Dr. Holmes (or his department) tells us that it is not in the stomach. It appears to be just below. It is pretty large for a gall-bladder or for a tumor of the liver.

It is possible for a solid tumor of the ovary to be as high in the abdomen as this and freely movable with a pedicle.

With the symptoms that she gives, of pain starting in the right lower quadrant and with the tenderness and spasm, a very wild shot is appendix abscess. It is possible, even though it is hard, nodular and freely movable. I can remember one appendix abscess that filled this description, although it was not so high in the abdomen as this is.

So that it seems to me the best diagnosis on the evidence we have is carcinoma. Of course I should like to know what the further X-ray of the colon showed. I assume it was done, and it would seem that it would give us some evidence. Nevertheless there was a case here two or three months ago where a mass as large as this was present as a carcinoma of the transverse colon, in which the X-ray did not show a definite occlusion. I think this is not the case here. Was there any further X-ray done on this?

MISS PAINTER: No second enema.

DR. YOUNG: From what the X-ray tells us it is natural to infer that it is in the colon. It is below the stomach and it seems to me that a carcinoma is the best diagnosis.

DR. HOLMES: There is no note here of any twenty-four hour observation, but we have a plate that does show the colon. These plates are evidently taken following an enema; at least they show the colon well filled, and in the region in which the mass is described there is a filling defect. I would not say from this that it was cancer. It might be pressure or spasm. It has not the characteristic mottled appearance. We should want to know whether it remained constant under palpation or not. There must be a fluoroscopic report somewhere.

DR. YOUNG: In any event it seems to me that the betting is so strong in favor of carcinoma that even at her age and in her condition, which is not quite as good as one would like to have it, operation is the only thing to offer, because we know that the lower a carcinoma is in the gastrointestinal tract the later the metastases. So that a resection may give a chance of cure or in any event of very considerable prolongation of life. Of course at her age and in her condition operation carries a very considerable risk, but it is the only thing to offer her without any question. The other things I have considered are all possible, but it seems to me they are pretty far in the background.

DR. YOUNG'S PRE-OPERATIVE DIAGNOSIS

Carcinoma of the colon.

PRE-OPERATIVE DIAGNOSIS

Retroperitoneal tumor.

OPERATION

The operation was performed under morphine-scopolamin-novocain anesthesia without any discomfort to the patient. Upper abdominal midline incision four inches long. Upon opening the abdomen about two quarts of straw colored fluid was evacuated. Upon exploration general carcinomatosis was found involving the peritoneal surface, both visceral and parietal. The omentum was rolled up into a solid mass and apparently accounted for the tumor felt at physical examination. The disease extended from the liver down to the pelvis, where the uterus

and ovaries were felt to be involved in a confluent mass. A specimen was removed for pathological examination. The wound was closed in layers without drainage.

PATHOLOGICAL REPORT

A pea-sized hard nodule showing on microscopic examination a structure of irregular gland tubules lined by atypical columnar epithelium and filled with mucus and vacuolated epithelial cells. The histologic appearances suggest a primary colloid carcinoma of the gastrointestinal tract.

Metastatic carcinoma.

FURTHER DISCUSSION

My reason for ruling out retroperitoneal tumor—because it was so freely movable—apparently did not appeal to them, because they thought it was that. So the fluoroscopic examination would help a lot on this diagnosis. Apparently they took out a small piece from the omentum. I think I will stand just where I was and say that it is from the gastrointestinal tract.

FLUOROSCOPE REPORT

Fluoroscopic examination July 20 showed a questionable irregularity of the transverse colon. The examination was unsatisfactory owing to the size of the patient. Diagnosis was deferred.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Carcinomatosis.
Aphasia.
Hemiplegia.
Intestinal obstruction.
Operation, exploratory laparotomy.

DR. EDWARD L. YOUNG'S DIAGNOSIS

Carcinoma of the colon.
General peritoneal carcinosis.

ANATOMICAL DIAGNOSIS

1. Primary fatal lesions

Adenocarcinoma of the gall-bladder with extension into the liver.
Peritoneal carcinosis.

2. Secondary or terminal lesions

Cholelithiasis.
Marked congestion of the walls of the gastrointestinal tract with some hemorrhage into the tract.
Thrombosis of the inferior cava and the iliac system.
Edema of the legs, ankles, and feet.
Slight hemorrhagic edema of the lungs.
Slight hemothorax.
Hemorrhagic ascites.

Fatty infiltration of the pancreas.
Soft spleen.

3. Historical landmarks

Angioma of the liver.
Chronic peritonitis.
Slight chronic pleuritis.
Slight arteriosclerosis.
Operation wound.

DR. RICHARDSON: She was fairly nourished, yet she was riddled with cancer.

The peritoneal cavity contained about 1000 c.c. of thin somewhat bloody fluid, and the peritoneum generally showed frank peritoneal carcinosis. It was well marked along the margins of the mesenteric insertion, and sometimes extended up on to the surface of the intestine. There was also considerable development of connective tissue, and this whole process was associated with marked congestion of the intestinal tract. That is, a marked congestion of the walls of the gastrointestinal tract with some hemorrhage into the tract. The mesenteric and retroperitoneal glands were negative. Sometimes in these cases of peritoneal carcinosis where it may be very extensive, the process seems to go around the glands rather than into them. Perhaps if we cut sections in every portion of the glands we might find a few new growth cells.

The pleural cavities contained a slight excess of fluid, and there were a few pleural adhesions on the right and a few on the left. The lungs showed some hemorrhagic edema but were otherwise out of the picture.

The heart weighed 235 grams, with negative valves and cavities. There was for her a slight amount of arteriosclerosis present.

The liver weighed 1560 grams and showed grayish areas scattered over the peritoneal surface, but no definite masses of new growth in the tissue itself except where it extended in from the new growth in the gall-bladder.

The gall-bladder was contracted down about a number of stones, and in the wall a cancerous process which extended into the liver for a distance of two to three cm., carcinoma of the gall-bladder with extension into the liver and with peritoneal carcinosis.

The great omentum was rolled up into a long thick roll-shaped mass, and the peritoneal surface of that was sown with plaques of new growth. The bile ducts were negative except for one very minute concretion in the common bile duct. The pancreas showed marked fatty infiltration. The duct of Wirsung was negative. The spleen was small and negative. The adrenals were negative. The kidneys weighed 216 grams, rather small but negative. The pelves, ureters, bladder, the uterus and adnexa were negative.

A SURGEON: That condition that you found,

of increased connective tissue and hemorrhages into the mucosa, do you suppose that could be due to radiation? She had X-ray treatment.

DR. RICHARDSON: No.

A SURGEON: Dr. Ewing states that the overgrowth of tissue is a very characteristic finding with radiation.

DR. RICHARDSON: I would not dispute that.

A SURGEON: Dr. Martin in experimental work has shown that necrosis of the intestinal mucosa may occur without injury to the skin.

DR. RICHARDSON: The mucosa here was all right except that it was saturated with bloody fluid.

A SURGEON: It was thought at the time that the carcinoma came from the ovaries. The ovarian type of tumor is very susceptible to radiation.

DR. CABOT: Is the examination of the urine in relation to sugar recorded at the first entry? I see she had sugar at the end.

MISS PAINTER: There was no sugar.

TETANUS NOT CAUSED BY VACCINATION

RECENTLY the newspapers have carried a story in regard to a death from tetanus 25 days after vaccination. Owing to the suggestion that vaccination may possibly have been a factor in causing tetanus the State Department of Health made an investigation of the case and obtained the following information: The child, aged 7 years, was vaccinated September 5th and developed tetanus September 29th which was 3½ weeks after vaccination. It appeared to be a very acute case as the child died on the morning of September 30th, the next day after the first symptoms were observed.

It was further learned that a week or ten days prior to the child's final illness she had fallen and scratched her arm. The wound on the arm was said to be over the elbow and not near the point of vaccination. There was also a wound on the left leg which was made at the time of the fall. These injuries were not treated at the time. The lesion on the arm is described by the physician at the hospital to which the patient was taken as a ragged laceration one and a half inches long, one-eighth of an inch wide in the widest part and about one-eighth of an inch deep, healing and forming a scab. The doctor stated the wound looked to be about a week or ten days old and this accords with the history of the child having received the wound in a fall about that time before the development of tetanus.

One thing appears certain from this history and that is that tetanus spores were not introduced into the child's body at the time of vaccination. Had such been the case the disease

would have developed very much sooner. It is usually considered that the longer the period elapsing between infection and the development of the disease, the milder the attack will be. Thus an attack coming on three and one-half weeks after infection would be very mild indeed. It appears, however, that the disease developed at about the right time to have received infection when the child fell and hurt her arm. Tetanus beginning a week or ten days after the spores of the germs are introduced into the body is sure to be severe, and is nearly always fatal.

Members of the family state that the vaccination was kept dressed with gauze, wrapping the gauze all the way around the arm according to the doctor's directions. Thus the point of vaccination was protected against dust or dirt being ground into it at the time of the fall. It would appear, therefore, that infection with tetanus in this case should be attributed to infection received at the time of the child's fall a week or ten days before her death, and that the infection entered the body through a wound on the elbow made at the time of her fall and not through the vaccination lesion. Thus the facts in the case do not warrant the suspicion that tetanus may have been due to vaccination.—*Connecticut State Department of Health.*

ALCOHOL IN MEDICAL PRACTICE

DR. C. C. WEEKS, in his book, "Alcohol in Medical Practice," makes a strong attack on the use of alcohol in therapeutics, but as he is careful to give facts and authorities in support of all his conclusions his book is a great deal more interesting and instructive than is often the case with works of propaganda.

He has collected statistics from nearly all the hospitals in the British Empire concerning their expenditure on alcohol in 1900 and 1923 respectively. These figures show that the consumption of alcohol in hospitals all over the world has decreased in a remarkable manner during the last twenty-five years. The average consumption per patient per annum has sunk in the last twenty-three years from the equivalent of 6.8 oz. of brandy to 1.3 oz. Owing to the rise in the price of alcoholic drinks, however, the expenditure per occupied bed has only sunk from 13s. in 1900 to 9s. in 1923. The expenditure of the various hospitals is set out in detail and some remarkable variations are to be noted. For example, the expenditure on wine and spirits in the London teaching hospitals varies from 5s. 2d. to 32s. 7d. per occupied bed. The author very reasonably adduces this variation as evidence that the use of alcohol in disease is determined more by custom or caprice than by any obvious therapeutic necessity.—*The British Medical Journal.*

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NARCOTICS AND THE LEAGUE OF NATIONS

WHATEVER may be one's opinion about the League of Nations from a political viewpoint, there can be no doubt but that in this congress of nations reside great possibilities for the control of the traffic in narcotics. How far the accomplishments of the Geneva Opium Conference fall short of its possibilities is set forth in an article by John Palmer Gavit, published in *The World's Health* for September, 1925. Mr. Gavit, who attended the Conference during its session from November 3, 1924 to February 19, 1925, calls attention to the seriousness of the situation, due to the fact that the production of narcotics in the world is at least ten times as much as the estimated amount required for medical and scientific needs, and that much of the raw material is now manufactured into concentrated products which are vastly more dangerous to human health, and the distribution of which is much more difficult to control. These facts were brought out at the Conference, and impressed everyone with the necessity of putting a stop to this evil. The official achievements of the Conference, however, were far from encouraging. The American and Chinese Delegations

both withdrew from the Conference because of their dissatisfaction with the measures proposed.

One step was taken which promises to be of some value. The Conference proposed the establishment of a Permanent Central Board, "whose principal business would be to gather information about the production of and international traffic in narcotics, and especially to watch the channels of illicit trade—smuggling." This Board, contrary to the original intention of its proposers, is given limited scope and no powers whatever, with one exception. "It is authorized, in event of an excessive and unexplained accumulation of narcotics in any country, and a belief by the Board that the country is in danger of becoming a centre of illicit traffic, 'to recommend that no further exports of substances covered by the present Convention or any of them shall be made to the country concerned until the Board reports that it is satisfied as to the situation in that country.' (Article 24.) Furthermore, the Board is authorized to publish a report in any such situation. This is a very great power, especially since the Convention also declares it the friendly right of any country, party to the agreement, to draw the attention of the Board to 'any matter which appears to it to require investigation.' "

Even the establishment of this Board cannot become a fact until the action of the Conference is ratified by ten powers, seven of which must be of the members of the Council of the League of Nations with the addition of the United States and Germany.

Already, according to Article 9 of the Hague Convention of 1912, every nation who signed the Convention Articles is pledged to limit the production of manufactured drugs to the needs of medicine and science, but not one of them has done it. The factory, as Gavit points out, is the logical place to apply such control, but there is great hesitation on the part of all the nations concerned, in interfering with the manufacture of these narcotic products.

Nothing can be accomplished until public opinion is aroused, and to this end Mr. Gavit would form a permanent voluntary international organization, "to create, clarify, unify and effectively focus the world public opinion and the leadership now so insufficiently informed and scattered; to awaken and inspire the people in all countries as to their danger and duty in this complex situation; to gather, correlate, interpret and publish in all languages the facts (including those reported by the Central Board if and when established); to cooperate with and at the same time to watch and spur the public authorities of all kinds charged with responsibility in any and every phase of this subject; to advocate necessary and oppose improper or hostile legislation; to help the Governments to

get together, to work together, and to move forward."

If such an organization can be formed and properly manned, it should be an effective factor in the suppression of this, the most insidious danger which threatens mankind.

HEALTH EDUCATION IN RHODE ISLAND

IN view of the recently awakened interest in the public dissemination of information concerning health and the prevention of disease, and the attempts on the part of the Massachusetts Medical Society to promote such valuable activities, it is noteworthy that the Rhode Island Medical Society has taken very definite steps in this direction.

The society's committee on education, of which Dr. George H. Crooker is chairman, recognizing the enormous field of radio, has arranged a series of short health talks to be broadcast each Friday evening until late in the spring. The subjects, according to the *Providence Journal*, will range from "Prenatal Care" through the illness and dangers of childhood to "Tuberculosis," "Cancer," and maladies common to all ages.

The JOURNAL has repeatedly emphasized the belief that the health of the public is one of the responsibilities of the physician. Preventive medicine will be the fruitful field of the future and the profession must lead and not follow in this movement. Every effort demonstrating that it is keenly alive to its duties will prove to strengthen its position in the mind of the public. The Rhode Island Medical Society is to be congratulated on setting an example that others would do well to follow.

THE CULTS IN ENGLAND

It is interesting to note that the medical profession in England is very much concerned about the invasion of the cults in that Country. English law relating to the practice of medicine requires high standards of those registered by the General Medical Council but does not interfere with unregistered or unqualified practitioners except that such persons may not sign death certificates, sue for fees, for services rendered, nor obtain an authorization for the employment of dangerous drugs. In other words, the doctor who holds himself out to be properly educated must be well equipped. The people may employ osteopaths, chiropractors or naprapaths and their only safeguard is in a suit for malpraxis.

The English medical press is paying considerable attention to the questions involved and the subject was deemed of such importance that Sir H. J. Waring, C.B.E., M.S., F.R.C.S., Surgeon to St. Bartholomew's Hospital, has devoted his presidential address to a considera-

tion of the problems involved, which was delivered before the Medical Society of London.

He gives a complete review of the beginning and development of these cults, explains the fallacies of the theories and warns against the inherent dangers. His conclusions coincide with the generally accepted belief in this country, that all who practice the healing art should comply with minimum standards of education. On this ground he urges that there should be a general educational propaganda which would enlighten the people so that special privileges should not be granted to unqualified practitioners.

His argument is sound. It is the one which has kept Massachusetts from the disgrace of several standards of medical practice. Unfortunately the legislatures of many states have capitulated and our state is one of a few which has been protected by its law makers.

Although there are indications of more general endorsement of scientific medicine there are the dangers of misunderstanding and indifference which sometimes operate to permit the passage of unsound laws. In England there are indications of a favorable attitude toward the cults within the Ministry of Health.

Quackery has flourished in the past in England and Abrams' theories seem to have appealed to a greater number of people there than in this Country. The English speaking people for some unknown reason seem to be more tolerant of unsound medical theories than most of the other highly civilized countries.

A MEETING OF PRACTICAL IMPORTANCE

THE Surgical Section of the Suffolk District Medical Society has arranged for a meeting to be held at the Boston Medical Library, November 18, at 8:15 P. M., as announced in the issue of November 5, page 897.

The subject to be considered is "Industrial Surgery" which will be presented by Dr. William O'Neill Sherman, Chief Surgeon of the Carnegie Steel Company, who is an authority on this subject.

Every practitioner is sooner or later brought in contact with some phase of industrial surgery. The theory of industrial surgery is not only to repair the immediate damage of an accident or disease but especially to return the wage earner to his occupation in the quickest possible time and with the fullest possible return of function. It, of course, embraces the humanitarian aspect of the remedial art.

It has seemed at times that surgery is most concerned in the result of the initial treatment and not always in the shortest and most complete convalescence.

Dr. Robert B. Osgood, Chairman of this Section, would like to have all who feel interested in the subject attend this meeting. He

feels that the Districts adjacent to Suffolk could be well represented without hardship to the members. He has especially in mind the following districts: Bristol North, Bristol South, Essex North, Essex South, Middlesex East, Middlesex North, Middlesex South, Norfolk, Norfolk South, Plymouth and Worcester North, but would feel especially pleased if the State at large could be represented. Those who have not been in the habit of attending the meetings of the Suffolk District have no conception of the instructive material presented from time to time.

The profession should, aside from any personal gain, feel under obligation to honor a prominent person who is willing to make the sacrifice incident to travel and absence from home. We hope that Dr. Sherman will have a large audience.

THE COMMISSIONER OF HEALTH OF MASSACHUSETTS



(Photograph by Bachrach)

It is with pleasure that we present a portrait of George H. Bigelow, A.M., M.D., the Commissioner of Health of Massachusetts. It is inspiring to note that he is a product of Massachusetts and trained in Massachusetts' Institutions. His father, Enos H. Bigelow, M.D., an Ex-President of the Massachusetts Medical Society, has served in the State Legislature and been deeply interested in Public Health matters.

Dr. George Bigelow was born in 1890. After graduating from Harvard University and the Harvard Medical School, he served as house officer in the Massachusetts General Hospital. During the war he served in the Laboratory Division,

Medical Corps, U. S. A., achieving the title of Captain. After a post-graduate course he was awarded the degree of Doctor of Public Health by the Harvard School of Public Health. He has held positions in Antioch College and Cornell University Medical College. Coming to Massachusetts in 1924, he was given the position of Director of the Division of Communicable Diseases in the Massachusetts Department of Public Health. He was regarded as the logical successor to Dr. Eugene R. Kelley deceased.

Dr. Bigelow is possessed of energy, ambition and an agreeable personality. It is confidently expected that he will maintain the high standing of this Department of the Commonwealth of Massachusetts, which is justly regarded as one of the most important activities of the State.

The Commissioner of Health may with reason expect the hearty support and coöperation of the medical profession. The JOURNAL tenders its congratulations to the State and Dr. Bigelow.

THIS WEEK'S ISSUE

Contains articles by the following named authors:

KEEFE, JOHN W., LL.D.; M.D., New York University Medical College, 1884; F. A. C. S.; Ex-President, New England Surgical Society; Consulting Surgeon, Rhode Island Hospital, etc. His address is under the title of "Traditions of Medicine in Rhode Island."

COBB, FARRAR, M.A.; M.D., Harvard Medical School, 1893; F. A. C. S.; Member, New England Surgical Society; Former Visiting Surgeon, Massachusetts General Hospital. His subject is "Lessons from Two Operative Fatalities."

BARNEY, J. DELLINGER, B.A.; M.D., Harvard Medical School, 1904; F. A. C. S.; Member, New England Surgical Society; Chief of Genito-Urinary Service, Massachusetts General Hospital; Assistant Professor of Genito-Urinary Surgery, Harvard Medical School. His subject is "A Case of Retroperitoneal Cyst."

SCUDDER, CHARLES L., B.A., Ph.B.; M.D., Harvard Medical School, 1888; F. A. C. S.; Member, New England Surgical Society; Consulting Surgeon, Massachusetts General Hospital and others; Chairman, Fracture Committee, American College of Surgeons. His subject is "The Fracture Committee of the American College of Surgeons."

LEWIS, DWIGHT M., B.A.; M.D., Johns Hopkins, 1901; Director, Bureau of Communicable Diseases, Department of Health, New Haven, Conn. His subject is "The Morbidity and Mortality of Diphtheria."

COUES, WILLIAM PEARCE, M.D., Harvard Medical School, 1894; F. A. C. S.; Instructor in Surgery, Tufts College Medical School; Assistant Surgeon to Out-Patients, Massachusetts General Hospital. He contributes articles on Medical History.

The Massachusetts Medical Society

NEW ADDRESSES

To Fellows of the Society:

Please send at once to the Secretary any changed addresses for the *Annual Directory*, soon to be issued.

W. L. BURREAGE, Secretary.

182 Walnut St.,
Brookline, Mass.

MEMBERSHIP CHANGES

Dr. C. A. Powell has moved from West Roxbury (Norfolk) to Brighton (Middlesex South). His address is 272 Allston Street.

1917) Rafferty, Thomas Bernard, Lynn, 131 North 1925) Common Street, was restored to the privileges of fellowship by the Council, October 7, 1925.

Dr. Walter B. Willey, of Everett (Middlesex South), has moved to Taunton (Bristol North), where he is assistant physician at the Taunton State Hospital.

MISCELLANY

U. S. PUBLIC HEALTH REPORTS OCTOBER 16, 1925

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

Diphtheria.—For the week ended September 26, 1925, 36 States reported 1,207 cases of diphtheria. For the week ended September 27, 1924, the same States reported 1,588 cases of this disease. One hundred and three cities, situated in all parts of the country and having an aggregate population of about 29,000,000, reported 562 cases of diphtheria for the week ended September 26, 1925. Last year for the corresponding week they reported 777 cases. The estimated expectancy for these cities was 825 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Measles.—Thirty-four States reported 323 cases of measles for the week ended September 26, 1925, and 356 cases of this disease for the week ended September 27, 1924. One hundred and three cities reported 201 cases of measles for the week this year, and 104 cases last year.

Poliomyelitis.—The health officers of 38 States reported 276 cases of poliomyelitis for the week ended September 26, 1925. The same States reported 294 cases for the week ended September 27, 1924.

Scarlet fever.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 993 cases; last year, 1,338 cases. One hundred and three cities—this year, 365 cases; last year, 586 cases; estimated expectancy, 413 cases.

Smallpox.—For the week ended September

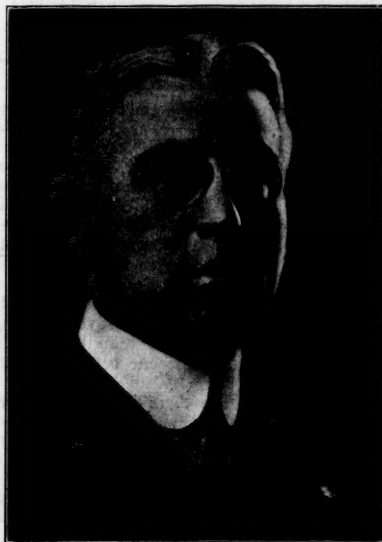
26, 1925, 36 States reported 102 cases of smallpox. Last year for the corresponding week they reported 274 cases. One hundred and three cities reported smallpox for the week as follows: 1925, 31 cases; 1924, 84 cases; estimated expectancy, 19 cases.

Typhoid fever.—Eleven hundred and forty-one cases of typhoid fever were reported for the week ended September 26, 1925, by 35 States. For the corresponding week of 1924 the same States reported 800 cases of this disease. One hundred and three cities reported 251 cases of typhoid fever for the week this year and 282 cases for the corresponding week last year. The estimated expectancy for these cities was 237 cases.

Influenza and pneumonia.—Deaths from influenza and pneumonia were reported for the week as follows: 1925, 324; 1924, 387.

THE ANNUAL MEETING OF THE VERMONT MEDICAL SOCIETY

THIS meeting was held in St. Johnsbury, October 16, 1925, being the one hundred and twelfth annual session.



EDWARD A. TOBIN, M.D.

University of Vermont College of Medicine, 1905,
Bennington, Vermont.

Colonel, Med. ORC., U. S. Army, was elected
President.

Other officers elected are: Vice-president, Dr. T. S. Brown of Burlington; secretary, Dr. W. G. Ricker of St. Johnsbury; treasurer, Dr.

David Marvin of Essex Junction; auditor, Dr. J. P. Gifford of Randolph; councillors, Drs. Grace Sherwood of St. Albans, C. W. Bartlett of Bennington, F. E. Farmer of St. Johnsbury and M. F. McGuire of Montpelier.

The house of delegates elected: President, Dr. H. H. Lawrence of Springfield; vice-presidents, Dr. D. J. Carroll of Rutland and Dr. P. D. MacSweeney of Burlington; secretary, Dr. M. H. Cram of Bridgewater, the family physician of Col. John Coolidge in Plymouth.

Dr. G. R. Anderson of Brattleboro was chosen delegate to the Connecticut Valley Medical Society, Dr. F. E. Farmer of St. Johnsbury to the New Hampshire society, Dr. V. S. Buchanan of Bennington to the Massachusetts society, and Dr. W. G. Ricker of St. Johnsbury to the House of Delegates of the American Medical Association.

The closing session of the meeting was devoted to a symposium of the general subject of headache, treated from several different professional standpoints by eminent Boston specialists, including Drs. Lee, Jason Mixer and Waterman of the Massachusetts General Hospital staff; Dr. D. Crosby Greene of the Huntington and New England Deaconess Hospitals; and Dr. George S. Derby, ophthalmic chief at the Massachusetts Eye and Ear infirmary.

The next annual meeting will be held in Burlington.

THE DIMINISHING DEATH RATE FROM TUBERCULOSIS

In England and Wales the rate stands today at 106.2 per 100,000 inhabitants or about one-third of the figures for 1863. Some common facts seem to exist in this as in all countries. Early in life the disease is prone to be abdominal or a general infection due in large measure to the bovine type.

The tendency to the invasion of the lungs increases between ten and fifteen years of age beginning with girls earlier than boys. The great number of deaths occur between 20 and 25.

Toward middle life there is a higher death rate among men as compared with women.

CAMERON LECTURES

DR. HARVEY CUSHING has delivered three lectures in this course at the University of Edinburgh, October 19, 20 and 22.

These lectures have been published in *The Lancet*, the first appearing in the issue of October 24, 1925.

GENERAL IMPRESSIONS OF THE A. P. H. A. CONVENTION

THE American Public Health Association in its 54th Annual Convention just ended at St.

Louis, has done honor to Connecticut by choosing for its next president Professor E. A. Winslow, Dr. P. H., Yale Medical School, and a member of the Public Health Council of the Connecticut State Department of Health. Connecticut should feel justly proud of the distinction, thus conferred upon one of her citizens.

The convention of four days, October 19-22, was full to overflowing with health topics discussed from various angles by well known leaders from all parts of the country. One of the notable features was the number of joint sessions held, emphasizing as never before how closely interwoven are all branches of public health work. One of the most successful of these joint meetings was held on the opening day of the convention, thereby making it an inducement to register early. At this meeting representatives from each of the nine sections, Public Health Administration, Laboratory, Vital Statistics, Sanitary Engineering, Industrial Hygiene, Food and Drugs, Child Hygiene, Health Education and Publicity and Public Health Nursing, reported progress in their respective fields during the last year. Though they touched only the high spots of public health achievement one was given a bird's-eye view of the whole field of public health.

Meetings were scheduled for every hour of the day and evening including luncheon and dinner sessions. Often breakfast hours were used for conferences with those doing similar work in different cities. During the week thirty sessions were held rounding up a total of 128 different subjects discussed, not including the special publicity clinics and the public health forum. There were four important sessions on public health education, one of these being a dinner meeting when those interested in publications discussed their common problems. Another was a luncheon session where printed material was presented and given the acid test by a very free and frank discussion of its merits. One morning was devoted to public speaking when short talks on public health were given to supposedly different type audiences and ruthlessly criticised by an expert on public speaking. Another meeting was given over to a presentation and criticism of health films. All such discussions should bear fruit in the immediate future in the form of a more simple, and direct and convincing health message through the printed word as well as through visual instruction.

It was a hopeful sign that the trend of child hygiene discussion aimed at more thorough child health examinations. There seemed to be a feeling however, that the school could not assume the burden of such complete examination and the responsibility for these must be shared by the home and the family physicians. The school health program came in for its share of attention, and a rich field of illustrative

material was pointed out as available for this service.

Technical papers were read on the latest methods in control of such diseases as influenza, pneumonia, diphtheria and scarlet fever. The need for changing the ventilation laws for schools claimed some attention from the industrial hygiene group. This was also discussed at one general session which went on record as approving such a project to the end that elaborate and inefficient ventilating systems now in use be replaced by more simple and effective methods so that child health may be improved.

About 1,000 were registered at the convention.—*Bulletin Connecticut State Department of Health.*

ADDRESS AT HARVARD MEDICAL SCHOOL

DR. MILTON J. ROSENAU, Professor of Preventive Medicine and Hygiene, addressed a large gathering of students at Harvard Medical School on Wednesday, November 4th. The meeting was held under the auspices of the Phillips Brooks House Association. Dr. Rosenau spoke in a most interesting way of his impressions of the American Tropics. He told of many advantages and opportunities in the tropics that oftentimes are left out of consideration. Following is a brief outline of his address.

Although it is a fact that civilization has only been successful in temperate climates, yet we must credit the tropics for many contributions to human happiness. Some of the most beautiful things in art, some of the best thoughts in poetry and some of the highest ideals have originated in the tropics. Palestine, which might be called the mother of religions, is situated in a sub-tropical zone.

We are also indebted to the tropics for the beginnings of civilization. Community life first established itself along low-lying river banks, such as the Nile. Conditions there first permitted a certain amount of ease for thought and the development of civilized customs.

The tropics present a greater variety of climate, topography and scenery than other zones. In America we have both insular and continental tropics. They consist not alone of low swampy coastal plains infested with malaria, but also attractive mountain lands. At a height of fifteen hundred feet in Jamaica there is a climate of perpetual spring. Every variety of climate may be found in the tropics, much more so than here. An arid district may be separated from a region with plentiful rain by only an hour's travel. The snow-capped mountain looks down on the plain, sweltering in a tropic sun.

On the West Indies and along the coast of the mainland, the temperature in early morning before sunrise is about 70°F. Up until noon the wind blows landward with increasing velocity. In the afternoon it gradually dies away.

These breezes are known in Jamaica as the "doctor." After sunset the land breezes blow down from the mountains. It is always comfortable in the shade if one is facing the trade winds. The temperature rarely goes above 90°F in the daytime and there is no sunstroke.

It is important to have exercise to keep well in the tropics. Such vigorous pastimes as tennis, golf and baseball may be pursued. The best exercise is swimming, one can indulge in it without getting overheated.

During the six summers, Dr. Rosenau has spent in the tropics, three questions have been uppermost in his mind. (1) What are the opportunities for medical men in the tropics? (2) Can the tropics ever become a source of reserve food supply for the temperate zone? (3) Can white men successfully colonize the tropics?

He believes there are favorable opportunities for practise there. There is a greater morbidity and higher mortality than in temperate zones. Infectious and parasitic diseases are more common. The problems in public health there are most challenging. The opportunities are unlimited for the exercise of individual initiative in medical and public health work. Two things, however, are essential to success and these are mastery of the language and license to practise. Each country has its own system of medicine and its own examinations.

The tropics cannot be the place to grow the reserve food supply for temperate zones, unless new grains are found that will grow there. Hard grains do not thrive in the warm climate. The land yields many nutritious and useful vegetable oils and fruits, and there are natural resources there of untold and untouched wealth.

It is interesting to speculate on the outcome of a continuous increase in the world's population at the present rate. It is estimated that there are thirteen billion acres of arable land in the world. It takes two and one-half acres to support a man. According to these figures, five billion people could live on the world at once. In 1800 the population of the world was 850 million. In 1900 it had increased to one billion, seven hundred and fifty million. The rapid increase in the nineteenth century can be explained on the basis of scientific discoveries. In the year 2000 A. D. if the same ratio continues, we shall be approaching the saturation point according to the Malthusian theory. Then we might expect the final war for food, in comparison with which the recent World war would pale into insignificance. Dr. Rosenau does not think that such will be the outcome. Before the saturation point is reached, an equilibrium will be established. Nations will no longer have ambitions to increase their population and territory because they will serve no purpose. Such an equilibrium and interdependence as exists here among our United States, we hope will come in the world of nations.

Some remarkable public health work has

been done in the tropics, since the discovery of the mosquito as the carrier of yellow fever and malaria. The city of Havana, the centre of a yellow fever zone at one time, is now free of the disease. Any case entering the city is at once isolated and screened. The mosquitoes are controlled. The city has a fine water supply and is well sewered. Occasionally there are epidemics of typhoid, but we have similar occurrences here on a smaller scale. We can have security from typhoid and similar diseases only through eternal vigilance.

Dr. Rosenau made some interesting references to the medical school in Havana, also to the medical men who made important contributions to the solution of the yellow fever problem.

HISTORICAL ADDRESS BY DR. E. S. JACK AT THE SEVENTY-FIFTH ANNIVERSARY CELEBRATION OF THE MIDDLESEX EAST DISTRICT MEDICAL SOCIETY AT THE WINCHESTER COUNTRY CLUB

MR. PRESIDENT, Fellow Members of the Middlesex East District Medical Society, Ladies and Guests:—

I feel it a privilege and an honor to be called upon to address you today, on this the observance of the 75th anniversary of our Organization.

Twenty-five years have elapsed since we got together for a similar observance at Woburn. Many have dropped from our ranks and many have joined our society so that our membership remains about the same. These years have been years of great activity—campaigns making for public welfare and preparations for the world war and its consequences.

The services of our district were enlisted in this work. Committees were formed to carry on in the cities and towns throughout the District and to coöperate with other committees in the state at large.

But before dealing further with the history of the Society in the last twenty-five years, I want to go back to our 50th Anniversary and to tell you something of the early history of the Society as told in a most excellent address by Dr. Samuel W. Abbott.

The call for the observance of the 50th Anniversary of the Middlesex East District Medical Society read as follows:—"The Society has been one of the foremost of the district societies in its devotion to the elevation of the standing of the profession and in the quality of the scientific work which has been accomplished by its members in the half century of its existence." A proud boast.

With the exception of the Suffolk it is the only district society which has maintained monthly meetings for a continuous period of nearly thirty years. Let me add that these meetings with the omission of two to three

months in the summer, in recent years, have continued to the present day,—an excellent record. Let me briefly tell you something of our early history.

In the summer of 1850 Dr. Benjamin Cutter, the founder of this society, secured eighteen signatures to an application for permission to organize the Society. In 1850 there were Districts only here and there. The Councillors of the Massachusetts Medical Society had had under consideration the redistricting of the state and between 1848 and 1850 seven new districts were organized in the following order: Suffolk, Bristol North, Norfolk, Middlesex South, Middlesex East, Plymouth and Franklin.

At a meeting of the Councillors of the State Society, Oct. 2nd, 1850, it was voted that the Middlesex East District include Woburn, Winchester, Stoneham, Melrose, South Reading, Wakefield, Reading, Wilmington, and Burlington, one of the smallest districts in the state, a wise provision on the part of the petitioners, insuring, as it did the holding of frequent meetings. A charter was granted. Among the duties transferred to the district societies were the following:

1. The choice of a board of censors who were to decide upon the qualifications of those practitioners in the District who desired to become members.
2. Choice of councillors and commissioners of trials.
3. Choice of delegates to the American Medical Association.

4. The admitting of practitioners who have been more than fifteen years in practice.

These duties previously all devolved upon the State Society and the Board of Councillors were self-perpetuating, filling their own vacancies, and had a degree of arbitrary power not likely to be always exercised for the best interests of the members at large.

On Oct. 22, 1850, eleven physicians,—Drs. Cutter, Nelson, Drew, Clough, Plympton, Piper, Rickard, Davis, Wakefield, Stevens and Youngman met by invitation at the home of Dr. Benjamin Cutter and organized by choice of officers. The house in which this Society was organized stood upon Pleasant Street facing the Common on land now occupied by the Woburn Savings Bank. The number of physicians in the district in 1850 was 26 or 27, of whom 24 became members of the Society at its organization.

In the Charter granted it was set forth that one of the chief objects in establishing the different District Societies was to add to their efficiency and importance, realizing that the beneficial influences of the parent society must depend upon the interest which is taken in its local organizations, that they may do much to raise the standard of education and of charac-

ter in the profession and to render the personal intercourse of physicians with each other more harmonious and improving. It must be remembered that many of the members were previously unacquainted with each other.

The added responsibilities thus transferred to our Society aroused its members to the opportunity for work, and the compactness of the District with its opportunities for frequent meeting made it possible that within ten years of the date of its organization, the Society had won for itself a name as a live, working progressive association, following lines of investigation and doing useful work in fields then comparatively new. The first paper read before the Middlesex East District Medical Society was read Nov. 19, 1850, by Dr. Benjamin Cutter and was entitled "Cases of Inflammation of the Appendix Vermiformis." In this paper he detailed with great minuteness the occurrence of a fatal case of appendicitis in a boy ten years old in Winchester. The pathological specimen of the appendix in this case was shown and Dr. Cutter added the notes of six other cases of the same nature which he had collected from current Medical Journals of that period, and by the way, it is recorded that journals and periodicals were an early investment of the Society. The value of such reading matter can be easily estimated. All important papers read before the Society have from the beginning been filed away as read or copied from the original or from notes taken at the time.

Among the lines of work which were proposed as worthy of investigation were two measures which had for their object the collection and publication of information upon two distinct medical topics:—

The first, the collection of information relative to births and accidents of childbirth.

Data were distributed in blank forms. These data included everything called for in the making of records and the blanks were returned to the secretary each year for compilation and publication. This work was continuous for a period of twenty years.

The second, at a meeting of the Society held May 14, 1856, a resolution was adopted to the effect that the members be requested to report in January of each year, all epidemic diseases which have occurred in their practice and that the secretary be authorized to prepare a list of such diseases for the use of the members. This work was intrusted to the Secretary, Dr. Ephraim Cutter, and also the duty of collecting and publishing them. These reports of father and son are published in the Transactions of the State Society of 1858 and 1859 and comprised the returns of 16,092 cases of infectious diseases and 737 deaths from the same. It is a physician's work to treat disease, to ob-

serve it in all its phases and to record his observations for public good.

At the Annual Meeting of the State Society in May, 1858, all papers and communications presented (three in number) were read by Members of the Middlesex East District Medical Society.

Early in its history the attention of the Society was called to *Veratrum Viride*. Dr. Benjamin Cutter prepared a quantity of the tincture from the root of this plant which was little used then but thought by Dr. Cutter to possess unusual properties as an arterial sedative. A large quantity was later distributed to the profession throughout the State and in 1862 was introduced through a member of our society into Europe. And among our records is somewhere a letter from the West praising its use in that dread complication puerperal convulsions. There is a blank dated 1865 entitled, "Therapeutical Inquiries of the Middlesex East District Medical Society." This shows that this was still a working society. Under the date of 1875 a paper read by Dr. Chapin of Winchester carries the same message that the work of observation and recording was still being done.

I would now turn my attention to the rapid advancement in medicine and surgery in the last years of the 19th century: Turn from such observations and their results; to the discoveries of the laboratory and their application to the treatment of disease and its prevention, discoveries with reference to the intimate causes of infectious disease with constant reduction in the mortality of such diseases as typhoid and diphtheria, to Koch's discovery of the bacillus of tuberculosis, researches in blood and blood diseases. I well recall the rivalry of different schools abroad, their quarrels over cultures and media, the various staining reagents, how antiseptics only inhibited the growth and did not destroy.

One of the last papers read before the Society at the close of the 19th Century was entitled "The Limitations of Modern Scientific Medicine." The writer showed how oftentimes the results of laboratory tests were negative when clinical tests were positive. The different ways in which one could expect help in diagnosis were enumerated. In conclusion the physician was cautioned not to allow laboratory diagnosis to overrule his carefully considered clinical observations. "Make the laboratories your servants, do not allow them to become your masters." How far is this caution called for to-day? In concluding his address delivered at the observance of the 50th Anniversary Dr. Abbott said: "As we stand upon the threshold of a new century, as well as a new half century of our own career as a district medical society, a glorious future opens to the view of the young

practitioner if we may judge from the rapid and brilliant progress which has been made in these last few years."

Medicine has advanced with giant strides with this the 20th century.—The same is true of surgery. Research in the laboratories has given us new discoveries and new remedies—vaccines, sera and insulin,—immunology, syphilology, endocrinology with its thousand and one remedies—many of doubtful value,—a fruitful field for investigation. And what of the brilliant future pictured for the younger men of our Society—Has it been realized?

Changes have consequently come to the doctors whose field of work is in our own suburban towns and cities. With the advance in medicine has come development of specialism, seemingly regarded by some recent graduates as an easy road to money and reputation. Representatives of insurance companies and of industrial organizations and social workers have broken into the field of general practice and go here and there without so much as by your leave. Hospitals and training schools for nurses have been a part of the progress. Four hospitals have been incorporated within our district and it is with pride that I record their high standing.

The general practitioner has of necessity broadened his knowledge and has much more to learn—he has familiarized himself with what the laboratory offers in functional tests and aids in diagnosis,—with the X-ray,—and threatens to become too dependent upon them,—to forget the careful observations of our predecessors, their gentle kindly manner at the bedside so reassuring to the patient.

From remarks made by Prof. W. S. Thayer at the dedication of the Colorado State Hospital and School of Medicine, Jan. 23, 1925, are the following extracts:

"The multiplication of scientific methods of investigation has not transformed, it has broadened the art of medicine. In doing so it has not diminished, it has increased the duties and the responsibilities of the practitioner, who, to-day must have a much better general and special education than forty years ago.

"And that which should never be forgotten but sometimes is forgotten—*this larger scientific basis saves not one hour of the necessary training and experience in the art of physical diagnosis and in the study of disease at the bedside, of that sympathetic contact with suffering men and women through which alone efficiency in the art of medicine can be attained.*

"Not all the chemistry and physics in the world can make a good diagnostician or a good practitioner or a good teacher of him who is not at home by the bedside."

Early in the present century war was de-

clared on tuberculosis. Our Society aided the State in this campaign. Local committees and a committee of fourteen to cooperate with committees from other districts were appointed to educate the people in the care and prevention of tuberculosis.

The Society has been active in other campaigns making for public welfare. We have been represented upon the Auxiliary Legislative Committee of the State Society each year. I omitted to tell you that the Society has been represented in the Legislature by at least three members. It has furnished a member for the Governor's Council. Under the old inquest laws two coroners were drawn from its ranks and under the new law of 1877 every medical examiner appointed in this district has been taken from the ranks of the Society. One member has honored the Society as Vice-President of the parent body and one recently as Mayor of Melrose.

What of the World War? Many were hard and faithful workers on the draft. Few enlisted and few were sent or found their way abroad. Two made the supreme sacrifice: Dr. Howard E. Jackson died at Fort Oglethorpe, Georgia, Oct. 13, 1918. Public services were held in Memorial Hall, Melrose. Dr. Frederick A. Simonds of Wakefield died in Wakefield, Dec. 2, 1922. He received a Captain's commission in the British Field Artillery Hospital early in the war and later transferred when this country entered the conflict. Thirty-one others have died in the last twenty-five years.

I have to record the sad fact that of recent years very few papers have been written by any member of the Society,—a fact in striking contrast with the activity in this respect during the first half century of its existence. Not a pathological specimen has been shown. Surely there have been opportunities for investigation in the rapid advance—a call for therapeutical inquiries,—Surely the hospitals could furnish material for exhibition. Can anyone doubt the advantage of discussion of that formidable complication of childbirth, placenta praevia? To discuss the ethics of this,—have we lost something of the past? Inertia or indifference, which is it? Our meetings have far too often been poorly attended. I would urge that we do our own work, report our own cases. Get closer in touch with each other. Surely something is to be done if we would regain the reputation we had gained at the end of our first ten years as a live progressive working organization,—regain the friendliness and interest and kindly courtesy to each other that prevailed then,—that there may be realized in increasing measure the beneficial influence to come to the parent body, our State Society, in aroused interest in our local organization.

RECENT DEATHS

GUIERAS—Dr. JUAN GUIERAS, health expert, died at his home in Havana, Cuba, October 28, 1925, at the age of 73.

He was born in Matanzas, Cuba, January 4, 1852, was educated at La Empresa, Matanzas, and took his M.D. at the University of Pennsylvania in 1873, receiving also the Ph.D. After serving as resident physician to the Philadelphia Hospital for six years and in the United States Marine Hospital service for ten years, he became professor of pathology in his medical alma mater, a position he held for another ten years, meanwhile acting as an expert in yellow fever in the campaign of General Shafter in Cuba in 1898. From 1900 to 1921, Dr. Guieras was professor of general pathology and tropical diseases in the University of Havana and also director of public health in that city. He held many offices in medical societies and was a frequent contributor to medical literature.

BEEBE—Dr. THEODORE CHAPIN BEEBE, a native of Springfield, a Fellow of the Massachusetts Medical Society since 1901, died at Paris, France, following an operation for appendicitis, November 1, 1925, at the age of 51.

Dr. Beebe was a graduate of Harvard Medical School in the class of 1900, having previously taken his A.B. at Harvard in 1896. He was a surgical house officer at the Boston City Hospital and settled in that city. He went abroad a year ago and had lived in Paris. He is survived by his widow, who was Mrs. Ethel H. Rust.

JOYCE—Dr. THOMAS FRANCIS JOYCE, a Fellow of the Massachusetts Medical Society, died at his home in Lawrence, October 29, 1925, aged 68 years.

He was a native of Portland, Me., was educated at St. Mary's School there and at Fordham University, N. Y., where he took his M.D. in 1893. He was in practice in Lynn for 14 years and then superintendent and resident physician at the Lawrence Municipal Hospital for five years, following which he served an equal number of years as superintendent of the Tuberculosis Hospital. He was an Elk and a Knight of Columbus. He is survived by a widow and one daughter.

CORRESPONDENCE

OFFICIAL BUSINESS OF THE BOARD OF REGISTRATION IN MEDICINE

The Commonwealth of Massachusetts
Department of Civil Service and Registration
October 30, 1925.

Editor, Boston Medical and Surgical Journal:

At a meeting of the Board of Registration in Medicine, held October 29, the registration of Dr. Howard N. Nason, now serving sentence in the Charlestown State Prison, for conviction of crime of abortion, was revoked.

The registration of Dr. E. S. Nathanson of Lynn was suspended for one month for neglect to make proper returns of births attended by him.

The registration of Dr. Alfred P. Bowen, also of Lynn, was suspended for two weeks for the same reason.

Yours very truly,

DR. FRANK M. VAUGHAN, Secretary.

SCHOOL PHYSICIANS ASKED TO ATTEND THYROID CLINICS

Editor, Boston Medical and Surgical Journal:

Endemic goitre has been receiving increasing attention of the country as a public health problem.

Although the prevalence in this State will undoubtedly be far below anything found in the so-called goitre belt, there is some reason to suppose that it is not entirely absent here.

Dr. Kelley had invited the United States Public Health Service to cooperate with us in a thyroid survey of the State. Dr. Robert Olesen, who has made similar surveys elsewhere, has been assigned to this work and will begin early in November. We plan to visit the high schools and some sixty communities scattered over the State, and at a later date to send a representative to collect pertinent data from the school medical record cards of the children examined. This data will be correlated with the iodine content of the waters and with cancer material collected this summer.

The completeness of the school records will, to a certain extent, influence us in our choice of communities. One of the great advantages of such a survey is that it can be accomplished with a minimum of disruption to the school routine.

Through your columns I am particularly anxious to present this matter to the school physicians, whom we hope will be present at the examinations in their community. We would of course be delighted to have any other physicians who may be interested attend the examinations, either in whole or in part.

Yours truly,

GEORGE H. BIGELOW, M.D.,
Commissioner of Public Health.

AN APPROVAL OF THE ATTITUDE OF THIS JOURNAL

Portland, Me., October 30, 1925.

Mr. Editor:

Referring to your editorial headed "An Offensive Question—Questionable Medical Jokes," in the JOURNAL of October 29, 1925, page 843, it has long been apparent to many of us that the national weekly medical journal, the *Journal of the American Medical Association*, has employed a very common fellow to edit its column headed "Tonics and Sedatives" in the back part of the advertising section of that journal. Of course, it may be argued that a majority of mankind are common and want humor of that order. Even the newspapers, however, draw a line at obscenity, and it seems to me that you are justified in calling attention to a departure from decency in the national weekly.

Yours truly,

JOHN HOLTEN.

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

DISEASES REPORTED FOR THE WEEK ENDING OCTOBER 31, 1925

| | | | |
|---|-----|----------------------------|-----|
| Anterior poliomyelitis | 4 | Ophthalmia neonato- | |
| Chickenpox | 138 | rum | 19 |
| Diphtheria | 112 | Pellagra | 1 |
| Dog-bite requiring anti-rabic treatment | 3 | Pneumonia, lobar | 95 |
| Dysentery | 1 | Scarlet fever | 179 |
| Encephalitis lethargica | 1 | Septic sore throat | 2 |
| Epidemic cerebrospinal meningitis | 1 | Syphilis | 63 |
| German measles | 12 | Suppurative conjunctivitis | 24 |
| Gonorrhea | 145 | Trachoma | 1 |
| Influenza | 4 | Tuberculosis, pulmonary | 102 |
| Malaria | 1 | forms | 10 |
| Measles | 414 | Tuberculosis, hilum | 1 |
| Mumps | 26 | Typhoid fever | 16 |
| | | Whooping cough | 173 |

CONNECTICUT DEPARTMENT OF HEALTH

MORBIDITY REPORT FOR THE WEEK ENDING
OCTOBER 31, 1925

| | | | |
|-----------------------------|----|----------------------|----|
| Diphtheria | 36 | Conjunctivitis inf. | 1 |
| Last week | 36 | German measles | 3 |
| Diphtheria bacilli carriers | 22 | Influenza | 5 |
| Scarlet fever | 44 | Mumps | 1 |
| Last week | 26 | Pneumonia, lobar | 7 |
| Typhoid fever | 3 | Septic sore throat | 38 |
| Last week | 10 | Tetanus | 4 |
| Measles | 49 | Tuberculosis, pulmo- | 2 |
| Last week | 29 | nary | 18 |
| Whooping cough | 30 | Tuberculosis, other | 2 |
| Last week | 37 | forms | 11 |
| Bronchopneumonia | 12 | Gonorrhea | 29 |
| Chickenpox | 51 | Syphilis | |

NEWS ITEMS

ALBERT MARSH RESIGNS—Having resigned the superintendency of Woodside Cottages, Inc., Dr. Albert Marsh is located at Hill Crest, Southboro.

HARVARD MEDICAL SCHOOL NOTES—Dr. Hilding Berglund's resignation as assistant professor in medicine has been accepted. Dr. Berglund will assume new duties in the University Hospital, Minneapolis, Minn.

The John White Browne Scholarship for research has been awarded to Dr. Frank Fremont-Smith.

ADDITION TO THE STAFF OF THE LAWRENCE GENERAL HOSPITAL—Drs. John G. Miller and John F. Curtin have been appointed assistants to the staff of the Lawrence General Hospital.

MASSACHUSETTS REPRESENTED AT THE MEETING OF THE PENNSYLVANIA MEDICAL SOCIETY—At the 75th anniversary meeting of the Medical Society of the State of Pennsylvania, held at Harrisburg, October 6-8, Dr. John E. Talbot, obstetrician at Memorial Hospital, Worcester, Mass., delivered an address by invitation upon the subject of "Toxemias of Pregnancy."

DR. SMITH ELY JELLIFFE has just returned to New York to resume his practice after attending the International Meeting of Psychoanalysts in Bad Homburg and the German Society of Psychiatrists and Neurologists in Cassel. He also visited the neurological and psychiatric clinics of Amsterdam, Vienna, Padua, Milan and Genoa.

A SERIES OF INTERESTING LECTURES—The Social Service Section of the New England Home Economic Association announces a series of lectures of interest to both Home Economic and Social Workers.

It is hoped that all interested will attend these meetings at the Food Clinic of the Boston Dispensary at 4 o'clock.

November 5—The Value of Laboratory Findings in Diagnosis, Dr. William Hinton.

November 19—Metabolism, Dr. Fritz Talbot.

December 3—Diet in Pregnancy, Dr. Joseph P. Cohen.

December 17—The Child and Nutrition, Dr. Arthur Lyon.

January 7—Diet in Gastro-Intestinal Disturbances, Dr. Harry Goodall.

January 21—Present Conception of Rheumatism, Dr. Louis Spear.

February 4—Family Development in Settlement House Districts, Miss Grace Wills.

February 18—How Can Social Worker and Dietitian Cooperate? Miss Elizabeth Holbrook.

March 4—Budgets for Dependent and Low Income Families, Miss Etta S. Sadow.

March 18—Round Table Discussion, led by Miss Ruth Emerson and Miss Ada Moser.

March 12—General Meeting. Miss Emma Dolfiner, Director, Division of Health Education, American Child Health Association. Place and time to be announced later.

REPORTS AND NOTICES OF MEETINGS

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY

THE Surgical Section of the Suffolk District have extended an invitation to the members of Middlesex South District Medical Society to be present at a meeting at the Medical Library at 8.15 p. m., November 18, in Holmes Hall. Dr. William O'Neill Sherman, Head Surgeon of the Carnegie Steel Company is the speaker of the evening. The subject of his address is, "Industrial Surgery."

STEPHEN M. BIDDLE, *Secretary*.

MASSACHUSETTS GENERAL HOSPITAL
SECOND MONTHLY MEETING

THIS meeting will be held Thursday, November 12th, 1925, at 8.15 P. M.

Doctors, medical students and nurses are cordially invited to the meeting. The program is as follows:

1. Demonstration of Cases—House Staff.
2. Results of Treatment of Diabetes with Insulin—Dr. R. R. Wheeler.
3. Surgical Aspect of Diabetes—Dr. L. S. McKittrick.

Discussion by Drs. E. P. Joslin, D. J. Jones, and F. Gorham Brigham.

JOSEPH C. AUB.

THE BOSTON DISPENSARY

25 BENNET STREET

At a meeting of the Clinical Staff of the Boston Dispensary, to be held Tuesday, November 17th, 1925, at 1:00 P. M., Dr. Stephen Rushmore, Dean, Tufts College Medical School, Boston, will speak on the subject:

"Medical Education. The opportunity for teaching and its utilization in the out-patient clinic."

Anyone desirous of attending this meeting will be invited on application to the Secretary of the Medical Staff.

BENJAMIN E. WOOD, M.D.,

Secretary.

THE PHYSIOLOGICAL CONFERENCE

THE third weekly meeting of the Physiological Conferences will be held in the Bowditch Library of the Harvard Medical School at 4 P. M., Monday, November 16. Dr. Edward D. Churchill will speak on "The Effect of Pulmonary Circulation Changes on Breathing."

"PRACTICAL PSYCHOLOGY IN BUSINESS"

A MEETING devoted to this subject under the auspices of Associated Industries of Massachusetts, Bureau of Commercial and Industrial Affairs, of Boston Chamber of Commerce, Harvard Mercantile Health Work, Massachusetts Society for Mental Hygiene, Retail Trade Board, Boston, Society of Industrial Engineers, Taylor Society, New England Branch, Manufacturers Research Association will be held Wednesday, November 18, 1925, at 6 P. M., Room L, Boston Chamber of Commerce, 80 Federal St.

Speakers—Wallace B. Donham will preside, Dean Harvard Graduate School of Business Administration. Dr. C. Macfie Campbell, Director Boston Psychopathic Hospital. Dr. Abraham Myerson, Professor of Neurology, Tufts Medical School. Dr. Elton Mayo, Wharton School of Commerce and Finance, Philadelphia.

It is expected that this meeting will be supplemented by a series of monthly conferences on special subjects such as: Absenteeism; Fallacies in Employment Work; Labor Turnover; Employees' Mutual Benefit Plans; Fatigue; Psychology of Incentives. Dates and speakers to be announced later.

This is an invitation meeting.

Further information may be obtained by addressing Mr. E. G. Plowman, c-o Associated Industries, Park Sq. Building, Boston.

THE SPRINGFIELD ACADEMY OF MEDICINE

THE regular meeting of the Springfield Academy of Medicine was held on Tuesday evening, November 10th.

The speaker of the evening was Francis W. Peabody, M.D., Professor of Medicine at Harvard Medical School. His subject was "Jaundice."

Dr. Theodore Bacon opened the discussion.

THE FIRST ANNUAL MEETING OF THE TRUDEAU SOCIETY OF BOSTON

THE first annual meeting of The Trudeau Society of Boston was held at The Medical Library on October 20, 1925, with Dr. John B. Hawes, 2nd, presiding. The attendance was the largest since the organization of the society.

After the usual preliminary business, election of officers took place:—

Dr. Cleaveland B. Floyd, President.

Dr. Edward O. Otis, Vice President.

Dr. George S. Hill, Secretary and Treasurer.

At the request of Dr. Hawes, Dr. Floyd took the chair.

With a series of chest films, Dr. George W. Holmes, Dr. L. B. Morrison and Dr. M. C. Sosman demonstrated various conditions of the chest among which were:—Malignant Lymphoma, Adeno-Carcinoma, Lymphatic Leukemia, Aneurysm, Cysts (in the various types), Tuber-

culosis (in its various types), Chondromata, Syphilis, Etc.

The discussion was opened by Dr. Frederick T. Lord and further discussion was held by Dr. Henry D. Chadwick, Dr. W. S. Wagner, Dr. Joseph Pratt and others.

Dr. Lord expressed the opinion that early operations for the demonstrable tumors might be advisable.

DR. GEORGE S. HILL, *Secretary.*

LYNN MEDICAL FRATERNITY

THE last meeting was held Wednesday, October 21, 1925, at Smith's Banquet Hall, 12 Union Street, at 8 P. M. Buffet lunch was served. Dr. Eli C. Romberg spoke on "Rheumatic Infection in Children."

BEVERLY HOSPITAL

A DEMONSTRATION clinical meeting was held at the Beverly Hospital, Tuesday, November 17, 1925, at 4.00 P. M.

THE ESSEX SOUTH DISTRICT MEDICAL SOCIETY

THIS Society held its regular meeting at Salem Hospital at 5 o'clock p. m., Nov. 4, 1925. Clinical session at 5.15.

PROGRAM

Dr. Field—1. Perinephritic Abscess (Anamalous Kidneys). 2. Mediastinal Tumor. 3. Megacolon (Hirschsprung's disease) Child 8 yrs. old. Dr. Elliott—1. Decompensated Heart.

Dr. Curtis—1. Carcinoma of Neck (2 cases). 2. Colles Fracture.

Dr. Donaldson—Cases of Infant Feeding with Karo Syrup and Buttermilk.

Dr. Bean—1. Myositis ossificans (2 cases).

Dr. W. G. Phippen—1. Retroperitoneal Sarcoma (Alive 9 yrs. after operation). 2. Ureteral Calculus.

At the close of the clinical session dinner was served in the nurses' dining room. The guest of the evening was Francis B. Ellis, M.D., a medical missionary on leave from his station in India.

Dr. Ellis spoke of some of the customs of the people and expressed the opinion that the main obstacles to progress are religion, ignorance and unwise politics, the last being dependent upon the two foregoing.

Those factors most largely influencing trade, he thought, were distribution of rainfall, the increasing use of automobiles, the wide dissemination of Standard Oil products and chiefly the improvements dependent upon governmental activities, as good roads, postal and telephone service and above all the guarantee of safety of life and an even dispensing of justice by the British authorities. The agricultural production

he stated to be about one third that required to sustain the life of the population. He spoke of the large excess of ill-nourished cattle, the destruction of which is prevented by religious views as is also the plague of rats which not only consume much grain but spread to the inhabitants bubonic plague which is always present but is more prevalent in June at the beginning of the rainy season when the rats are driven in from the fields. Vaccination against the plague he regarded as very successful. As a curative measure it has no value.

Other disorders frequently encountered are affections of the eye, especially cataract, infectious conjunctivitis, and trachoma, rabies, tuberculosis, calculi in the urinary bladder, leprosy, smallpox, relapsing fever, malaria and ulcers of the stomach and duodenum in the adult male population. The incidence of venereal diseases while considerable he thought to be not as great as is generally supposed. All natives he stated to be infested with intestinal parasites, chiefly, but by no means exclusively the round worm. The infant mortality is very high, sometimes reaching 350 in 1000 births.

Syphilis is common but the severe tertiary lesions are seldom seen.

Vaccination is efficacious against cholera and the bite of the cobra.

Leprosy is most successfully treated by intravenous injection of warm chalmogra oil.

He spoke of the different castes and the difficulty of ever harmonizing so many diverse elements in the population.

His description of the operation of the criminal tribes settlements was interesting and his evident devotion to his mission was inspiring.

An invitation was received to attend a meeting of the Suffolk District Society on Nov. 18, 1925, at the Medical Library. Adjourned 10 P. M.

WM. T. HOPKINS, Reporter.

SOCIETY MEETINGS

DISTRICT MEDICAL SOCIETIES

Essex North District Medical Society

January 6, 1926—The semi-annual meeting at Haverhill.
May 8, 1926—The annual meeting at Lawrence.

Middlesex East District Society

January 13—At the Harvard Club at 6:30 P. M. Address by Dr. Richard Ohler, "Metabolism."
February 16—At the Harvard Club. Address by Dr. William F. Boos; subject, "Industrial Poisoning."
April 14—At the Harvard Club at 6:30 P. M. Address by Dr. William E. Ladd, subject to be announced later.
May—Annual meeting, Colonial Inn, North Reading. Subject and speaker to be announced.

Suffolk District Medical Society

November 18—Boston Medical Library at 8:15 P. M. Surgical Section. "Industrial Surgery," by W. S. O'Neill Sherman of Bethlehem Steel Works.
January 6—At 8:15 P. M. Medical Section (meeting postponed from December). Dr. W. J. MacDonald will speak on "Experimental Work in High Blood Pressure."
January 27—At 8:15 P. M. Combined meeting with Boston Medical Library. "Medical Experience of an Explorer," Dr. J. Hamilton Rice.
February 21—At 8:15 P. M. Surgical Section. "Post-operative Care of Surgical Cases," Dr. Dean Lewis, Chicago. "Surgical Convalescence," by Dr. John Bryant.
March 21—At 8:15 P. M. Medical Section. Subject to be announced later.

April 28—At 8:15 P. M. Annual meeting. Election of officers. "Some Diagnostic, Prognostic and Therapeutic Aspects of Disorders of the Blood," Drs. George R. Minot, Cyrus C. Sturgis and Raphael Isaacs.

Notices of meetings must reach the JOURNAL office on the Friday preceding the date of issue in which they are to appear.

BOOK REVIEW

The Normal Diet: A Simple Statement of the Fundamental Principles of Diet for the Mutual Use of Physicians and Patients. By W. D. SANSUM, M. S., M. D., Director of the Potter Metabolic Clinic, Department of Metabolism, Santa Barbara Cottage Hospital, Santa Barbara, California. Cloth. Pages 68. St. Louis: The C. V. Mosby Company, 1925.

"The subject matter of this book has been given repeatedly by the author, in lecture form, to patients suffering from the various nutritional disorders.

"Diet errors are very common, and such errors are undoubtedly responsible for many minor ailments, as well as some of the more serious ones. We therefore believe that a simple statement of the fundamental principles underlying the selection of a normal (most favorable) diet may fill a want."

The author considers the dietary needs of the body from seven points of view, a chapter in his total of 68 pages of text being devoted to each, as follows: calories, protein, bulk, acidosis, minerals, water and vitamins.

References quoted, arranged according to chapters, are collected into a brief bibliography which follows the text.

The useful facts presented, interspersed as they are with intelligent clinical comment based on the personal experience of the author, justify the recommendation of this small volume to the attention of those physicians who find it necessary to consider for their patients the subject of diet.

The author hopes that his book may serve for the "mutual use of Physicians and Patients." The former may well find it useful, but the medical aspects of the vocabulary employed may limit its utilization among patients, to those to whom a medical dictionary is available.

One may not agree with all which appears in the text, but one may well agree with the following observations:

"The caloric, the protein and the vitamin requirements of the body have been taught to a limited extent. The bulk requirements, the balancing of the diet to avoid acidosis, the mineral and the water requirements have as yet, we believe, received too limited attention. None of these principles are new, but medical research, especially that of the past few years, has greatly emphasized their importance."